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FROM

The Bureau of Labor

24 Feb., 1896.



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THIRD ANNUAL REPORT
OF
INSPECTION OF FACTORIES
IN
MICHIGAN

MADE UNDER DIRECTION OF THE
BUREAU OF LABOR AND INDUSTRIAL STATISTICS



BY AUTHORITY

LANSING
ROBERT SMITH & CO., STATE PRINTERS AND BINDERS
1896

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The Com. of Labor



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Deputy Commissioner of Labor, - -

Assistant Chief Factory Inspector

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FLORENCE ORBISON,

Stenographer

DEPUTY FACTORY INSPECTORS.

W. F. TRIPP,

First District

GEO. E. GUNN,

Second District

L. C. F. HINTZ,

Third District

O. O. KRAPE,

Fourth District

T. A. ELY,

Fifth District

LETTER OF TRANSMITTAL.

STATE OF MICHIGAN,
BUREAU OF LABOR AND INDUSTRIAL STATISTICS, }
Lansing, Mich., February 1, 1896.

HON. JOHN T. RICH, *Governor*:

SIR—Act No. 126, session laws of 1893, as amended by act No. 184, session laws of 1895, directs the Commissioner of Labor to cause an annual inspection of all manufacturing places in the State of Michigan and to make an annual report thereof to the Governor.

In accordance with the provisions of said act, I have the honor to transmit herewith the third annual report of such inspection, made under the direction of this bureau.

Very respectfully,

CHAS. H. MORSE,

Commissioner of Labor.

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INTRODUCTION.

During the year 1895 there were 3,137 manufacturing places inspected in Michigan. This is an increase of 1,071 over the number inspected in 1893 and an increase of 449 over the number inspected in 1894.

The legislature of 1895 re-enacted the factory inspection law of 1893, amending its provisions in many respects. The appropriation to carry on the work was increased from \$4,000 to \$3,000. No limit is placed upon the number of deputy inspectors that may be appointed by the Commissioner of Labor, save by the amount of the appropriation, which naturally limits to a small number. The full text of the law now in force precedes the tabulated reports and will be found on pages 1-3.

After the enactment of the present law the State was divided into five districts. No arbitrary lines could be drawn in forming these districts. Lines of communication and facilities for traveling by inspectors must be taken into consideration in keeping expenses at a minimum.

An effort has been made in the past year to cover the whole State in compliance with the law which authorizes and requires the Commissioner of Labor "to cause at least an annual inspection of the manufacturing establishments or factories in this State." It has been impossible to make a second visit to a large number of factories, but wherever possible, inspectors have repeated their visits, keeping close watch to see that their orders are complied with.

The results of the inspection are highly gratifying. A large number of fire escapes have been erected, automatic protection to elevators furnished and dust arresters or blowers provided in many factories. Protection to machinery has been made in hundreds of places to the immense benefit of employes engaged therein. Sanitary regulations, including proper closets, have been properly looked after.

CHILD LABOR.

Child labor has received very much attention from deputy factory inspectors. The Commissioner and Deputy Commissioner of Labor have also given this matter much attention. During the summer of 1895 it was discovered that parents were making false statements of the ages of their children employed in factories. This was particularly true in Detroit. As a result employers were technically guilty of violation of the law when they had good reason to believe they were complying with it. After this discovery of false statements, all doubtful cases were investigated thoroughly. The school census and birth and church records were examined to find evidence of the age of children employed. As a result a large number were discharged from work. To the credit of employers it should be said that with very few exceptions they have manifested a desire to comply with this law. Doubtless there are cases not discovered by inspectors, but they are comparatively few. Many people have confounded the factory inspection law as it relates to child labor with the truant law. A rigid enforcement of both laws would effectually prevent the employment of children under sixteen years of age in factories.

Inspectors were instructed to be especially careful in their inquiries into accidents in factories. As a result, many slight injuries are reported in 1895 which were passed in previous years. The number reported in 1895 is 253. Very many accidents reported are from causes entirely beyond the control of factory inspection. For example, 43 fatal accidents are reported in the State. Of these, 33 were occasioned by boiler explosions, bursting of grinding stones and other causes beyond any preventive which could be prescribed by a factory inspector. The same may be said of those which may be termed serious, severe or slight. An examination of the reports of accidents discloses that of the 253 reported, 98 were from explosions and other causes not coming within the jurisdiction of factory inspection. Individual reports of deputy inspectors and the deductions from their tabulated reports are referred to for more particular information on the work of factory inspection.

The Commissioner of Labor cheerfully acknowledges the good work done by deputy inspectors. To their industry, energy and intelligence, coupled with their experience gained in previous years, may be ascribed very much of the success which has attended factory inspection in Michigan. Many letters have been received by the labor bureau acknowledging the value of inspection and complimenting the manner in which it has been prosecuted.

BOILER INSPECTION.

Boiler explosions are a source of many accidents. Soon after the explosion in the Detroit Journal office November 6, 1895, the Detroit Tribune published a list of boiler explosions in Michigan since January 1, 1893. Probably this record is incomplete, as it covers only those which may be termed stationary boilers. It is well known that portable engines and boilers have not escaped explosions. The Tribune article is reproduced here for the benefit of those interested:

Since January 1, 1883, there have been 102 boiler explosions in the State of Michigan, causing 172 deaths and injuring 209 people. This includes the Journal horror. The total property loss is given at \$266,000, not including the Journal's loss, but as the loss has been given in only about one in every ten cases, the actual loss is much larger than this. These figures and facts are furnished by the Detroit Association of Stationary Engineers, and are correct.

The following is a list of all of the casualties of this kind that have occurred in this state since 1883, with the details of the explosions:

- January 1, 1883—St. Louis; H. P. Hollister's saw mill; killing one and injuring two.
- January 2, 1883—At Filmore Center; the son of proprietor killed; seven injured.
- January 2, 1883—At Vassar; John H. Bates' saw mill; seriously injuring two.
- February 9, 1883—At Charlotte; B. J. Grier's saw mill; proprietor and engineer were instantly killed.
- March 20, 1883—Grand Haven; City Bakery; loss \$200.
- March 31, 1883—At Round Lake; Lark & Plant's mill; all were at dinner.
- April 26, 1883—At Plainfield township; Robert Copes' saw mill; the mill was completely demolished; the foreman was killed; boiler was second hand and had been burned; loss, \$1,000.
- May 14, 1883—At Green Bay; Merrick & Gibbs' saw mill; the boiler house was wrecked and one person seriously injured.
- May 21, 1883—At Detroit; the Wolverine Paper Co.; the boiler room was completely wrecked; the engineer and fireman were killed; the mill was new; loss, \$60,000.
- June 1, 1883—At East Saginaw; G. V. Turner & Son; three men were torn to pieces; loss, \$5,000.
- July 12, 1883—At Custer Village; Hoogstraet & Cousin's; killing the engineer and fatally injuring two others; the boiler was new; loss, \$3,000.
- July 17, 1883—At Sand Beach; Noble & Benedict's saw mill; engineer was instantly killed; boiler was old.
- August 4, 1883—At Roscommon county; A. W. Wright Lumber Co.; killing three men.
- October 20, 1883—At Grand Haven; Ross Bros.' sash factory; killing one man and seriously injuring several others; loss, \$10,000.
- October 24, 1883—At East Saginaw; Bliss, Brown & Co.; during a fire a battery of seven boilers exploded; but one person was injured; loss, \$60,000.
- December 21, 1883—Lacosta; Oxley & Hill's saw mill; killing the proprietor, engineer and one other person.
- January 5, 1884—At Stillwater; C. N. Nelson Lumber Co.; the fireman, John McCrimmen, was instantly killed, and one man seriously injured; loss, \$2,000; insured; low water cause.
- January 7, 1884—At Merrill; Hood Parson's mill; killing engineer, Anthony Moran, and injuring four employees; loss, \$5,000.
- January 17, 1884—Edmore; Dickinson & Anderson, saw mill; the watchman was instantly killed; the accident occurred half an hour before time to start work, or the loss of life would have been greater.
- February 1, 1884—Near Blanchard; Twitchell's shingle mill; two men were killed and several were injured; it was two years old; loss, \$2,000.
- February 9, 1884—At Mason Center; Pilgrim's mill; no lives lost.
- March 2, 1884—At Battle Creek, Sunday, at the Sanitarium; five persons were injured; loss, \$3,000.

March 5, 1884—At Jackson; Porter's saw mill, killing the engineer and brother of proprietor; one fatally injured; low water cause.

March 24, 1884—At Albion; Moses Roland's saw mill; two persons seriously injured and several slightly.

April 18, 1884—At Bay City; Dobson, Chapin & Co.; instantly killing two and seriously injuring six others and one slightly.

April 17, 1884—At Davison's Station; Butherick's grist mill; instantly killing engineer and seriously injuring proprietor and one other, a ticket agent; loss, \$3,000.

May 1, 1884—At Crow Island; boiler owned by Marion & Wilson, of East Saginaw; one child killed and woman injured; loss, \$1,000.

May 10, 1884—Saginaw; Green & Ring; wrecking boiler house; two persons seriously and two others slightly injured; loss, \$6,000.

May 30, 1884—Monroe; Maybee mill; killing the engineer.

July 19, 1884—At South Saginaw; Wiggins, Cooper & Co.; during a fire boilers exploded; no one was injured; loss, \$15,000.

September 20, 1884—At Shaftsbury; the Davis mill; no lives were lost.

November 13, 1884—At Hudson; Crisper's cooper shop; no persons were hurt.

December 19, 1884—At Jackson; Plummer's planing mill; two persons killed; six seriously injured.

April, 1885—At Manistique; Chicago Lumber Co.; the fireman, named Fuller, was fatally injured.

September 15, 1885—At Reese; Alfred Hauteberger, owner, was seriously injured; six persons were crippled for life.

January, 1886—Cheboygan; the manhead of the boiler in Perry & Baker's shingle mill blew out and made a hole in the roof of the building 20 feet in diameter; no other damage was done.

June 1, 1886—Quincy; the boiler in Kimbark's carriage woodwork factory exploded two hours after steam was gotten up; William Cole, the engineer, and Joseph Benton were killed; Superintendent F. G. Sheldon and seven employes were seriously injured.

June, 1886—At Mecosta; J. H. Breckus' shingle mill; killing Charles Bartlett and seriously injuring a man named Palmer.

July 16, 1886—Port Austin Manufacturing Co.; seriously injuring Engineer Daniel Drygert, and instantly killing Willie Jewett; there were seven miraculous escapes; damage, \$800.

August, 1886—J. H. Pearson & Son, Saginaw; no one seriously injured; damage, \$500.

January 29, 1887—Lake View; boiler in shingle mill of Joseph Brothers exploded, demolishing the mill and instantly killing James O. Wilson and seriously injuring James Joseph.

March 8, 1887—Alpena; boiler at Carr Brothers' shingle mill exploded, instantly killing Emory Carr and Waldo Carr, and seriously scalding Eugene Carr; the mill was blown to pieces.

March 8, 1887—Near Ithaca; boiler in W. F. Thompson's tub factory exploded, killing Rollin Norton and Orrin Harvey; Charles Wilson badly injured.

March 9, 1887—At Edmore; boiler of Gibbs' shingle mill exploded with terrific force, completely wrecking the mill and instantly killing two men, names not known; six or seven were seriously hurt; loss, \$3,000 to \$4,000.

May, 1887—At Turnbull's Lake, west of Big Rapids, one of the boilers in Cannon & Shipman's mill exploded; no one was seriously injured.

Nov. 16, 1887—Hancock; the packing house of the Hancock Chemical works was blown up; six men killed.

February 20, 1888—At Adrian, a saw mill boiler exploded; engineer killed; proprietor and two employes badly injured.

February 21, 1888—At Morenci; the boiler exploded in the saw mill of Levi Newell, four miles east of Morenci, killing the fireman, William Smith, and terribly injuring Levi Newell.

February 23, 1888—At Golden, a boiler in a saw mill exploded, killing Fireman Lamb and severely injuring another man.

February, 1888—Houghton; the boiler of a saw mill exploded, wrecking the mill; fortunately no one was injured; the explosion was caused by safety valve being overloaded.

May 14, 1888—At Caro, the boiler in the wooden works exploded, killing Henry Howland and severely injuring Joseph Randall, Frank Riddle, Albert Riddle and T. W. Wisner; cause, boiler old and patched.

June 1, 1888—At Wyandotte, the boiler in the plate mill of the Eureka Iron & Steel Works exploded, wrecking the entire building and instantly killing Terry McCoy, Patrick Finn and George Green, and seriously injuring a number of others; loss, \$10,000.

September 24, 1888—At East Saginaw, the boiler in J. H. Freeny's shingle mill exploded, killing Noah Smith, the fireman, and seriously injuring M. Jones, William Wooley and Fred Hartford.

October 9, 1888—At Grand Rapids, the boiler in Leitelt's machine works exploded, instantly killing Gustave Werner, the fireman; loss, \$2,000.

November 12, 1888—The boiler of a pile driver on the new bridge between Detroit and Belle Isle exploded; four men were injured and Charles Boston, Jr., died while being removed to his home in an ambulance.

December 31, 1888—At Millbrook, Mich., the boiler in Dush's shingle mill exploded, killing W. W. Dush, the proprietor, and John Carr, the night watchman; a man named Miley was fatally injured also; the whole establishment is a complete wreck.

January 11, 1889—At Pillston, boiler exploded in Bell's mill, killing the fireman, head sawyer and one other man.

February 21, 1889—At Clarksville; the factory of M. Shanks & Son; instantly killing Chas. Rogers, engineer, and injuring several other employees; the loss is \$2,000.

March 3, 1889—At Wayne; Warner's saw mill; entirely wrecking the building, instantly killing engineer Westfall; the loss is \$10,000.

March 28, 1889—At Hungerford; Morgan's shingle mill; killing Edward Stewart and fatally injuring his brother Charles.

February 23, 1890—At Big Rapids, the boiler at Nagle & Ball's, under the Northern Railroad bank exploded, seriously injuring the man in charge and badly wrecking the building.

February 24, 1890—At Detroit, the boiler in the bath room of a barber shop exploded, fatally injuring Joe Shaw, an employe, and stunning Fred Stearns, who was taking a bath.

April 11, 1890—At Gladwin, the boiler in Ozeman's saw mill exploded, completely wrecking the mill and instantly killing H. M. Corey, the engineer, and Aaron Corey, his son, who was fireman.

April 23, 1890—At Flint, the large boiler at Cook Bros. tile and brick yards exploded, scalding Fred Cook so badly that he died in two hours, also injuring two others.

June 19, 1890—At Alpena, the boiler in a lumber mill exploded, badly scalding the engineer.

June 25, 1890—At North Star, the boiler in Frank Gardner's stave mill exploded, killing Charles Brown, Fred Tucker and the engineer and fatally injuring four others, including the proprietor; the mill was totally demolished.

July 9, 1890—At Cadillac, a portable boiler of 12 horse power, blew up in the woods where it was used to saw stove wood; two men injured.

August 15, 1890—At Augusta, the North Shore Limited on the Michigan Central R. R., was badly wrecked, engine jumped the track and crashed into the depot, then exploded, instantly killing Engineer McRoberts and Fireman Gregg.

October 8, 1890—At Muskegon, an explosion occurred at the Ducey Lumber Co.'s lower sawmill; as William Yerger was getting up steam four of the six boilers exploded, wrecking one-third of the building and throwing the other two boilers from their foundations; nine men injured, two fatally; loss \$12,000.

December 13, 1890—At Big Rapids, the boiler of a small sawmill at Tibbett's Siding exploded; the engineer and two more were injured.

January 28, 1891—At Saginaw, the saw and shingle mill of R. C. Herbison, fifty miles west of Saginaw, was completely wrecked by an explosion of the boiler; George Badder, a sawyer, and Albert Finch, the fireman, were torn to pieces, and three others seriously injured.

July 20, 1891—At Lake View, the boiler exploded in E. G. Perkin's shingle mill, killing three men and injuring four others and completely wrecking the mill.

October 2, 1891—At Eaton Rapids, the boiler in the Evaporating Works exploded, tearing the building to pieces and killing the foreman, E. S. Bromeling; loss \$10,000.

October 12, 1895—Ironwood, William Mittolstadt killed by the bursting of a blow-off pipe at the Ashland mines.

January 12, 1892—At Ironwood, a terrific explosion took place at North Pabst mine; the entire plant was wrecked, one man was killed and two others were fatally injured.

February 6, 1892—At Clarion, near Petoskey, in Merrill Bros.' saw and shingle mill, John Gregg was terribly scalded and had his skull fractured; the mill had just shut down; the rest of the mill was protected by logs, or the loss of life would have been very great.

February 12, 1892—At Bay City; H. A. Crane's sawmill; William Taylor was instantly killed; the boiler room was completely wrecked.

March 4, 1892—Near Port Huron, the boiler in Charles White's sawmill exploded, killing Frank Morran and scalding five others, most of them fatally; loss, \$4,000.

March 21, 1892—At East Jordan, the boiler of the East Jordan Lumber Co.'s mill No. 2 blew up, instantly killing William Beach, Simon Carney, Peter Sheldon, John C. Brown, Bert Cook, Emanuel Hunt and Anazi Christy; those seriously injured were Sanderson Reinhart, John Ringle, James Smith; the explosion was heard 14 miles away.

April, 15, 1892—At Bender, the boiler in D. A. Welsh's planing mill blew up; no one was injured, although parts of the boiler were carried over 30 rods.

April 26, 1892—At White Dale, near Manistique, a locomotive on the Soo line exploded, injuring Engineer Hubbard and Fireman Stead very seriously; the fireman died the next day.

May 12, 1892—At Midland, a terrible explosion occurred; three boilers in the mill of the Midland Salt and Lumber Co. blew up and Charles Allen, Eugene Van Valkenburg and Richard Stears were killed; Gus Malcomb, Arthur Robinson, E. P. Elton, Charles Glenn, Charles Burt, Albert Bye, Patrick Burke and Sanford Walton were badly injured; the mill completely wrecked.

June 14, 1892—At Climax, a station near Battle Creek, the boiler of locomotive No. 29 of the Chicago & Grand Trunk Railroad exploded; William Word, engineer, J. T. Smith, fireman, and B. N. Parker, head brakeman, were seriously injured.

July 28, 1892—Near Gaylord; a disastrous explosion occurred in Bagley township; the boiler in Hartwell & Smith's shingle mill blew up, demolishing the mill and killing John Thompson, Irvine Hutchins, Leon Skinner and Andrew Swedock; William Small was fatally hurt and Frank Davis was injured.

September 4, 1892—At Elk Rapids, the boiler in the steam yacht Cora, of E. S. Nobles, blew up while standing at the dock, tearing the machinery to pieces, breaking Mr. Nobles' leg and injuring Miss Farrand and Mr. Owen.

October 20, 1892—At Fenton, near Flint, a double explosion took place; the boilers in Phillips & Co.'s factory exploded, one at 9 a. m. and the other at noon; small damage.

November 24, 1892—Escanaba; the steam heating boiler in the basement of Erickson's dry goods store exploded, breaking all the glass in the building; Mr. Erickson was slightly hurt; the interior of building was badly wrecked; loss, \$3,000.

January 21, 1893—H. B. Hathaway boiler in mill at Blissfield, near Adrian; loss, \$3,000; several hurt seriously.

January 30, 1893—In factory of W. F. Stewart, Pontiac; wrecking mill completely; several persons were injured; the loss was several thousand dollars.

February 13, 1893—In Wiltse's mill, in Ashley; no particulars.

February 25, 1893—Near Cadillac, Fireman Pat O'Neil was killed.

April 17, 1893—Near Hamburg, Fireman T. C. Wilson was scalded to death.

May 11, 1893—Cheboygan; Herman Schultz was badly scalded.

May 25, 1893—Saginaw; at Ring, Merrill & Tillotson's; engine and dynamo room wrecked; loss slight; fireman received a bad scalp wound.

August 22, 1893—J. W. Willett's mill, in Bushnell; George Austin was killed and two others were seriously injured.

September 5, 1893—Highland Park, near Detroit, John Roberts, the engineer, was instantly killed and Aug. Krohn died; two other employees were seriously injured.

April 9, 1894—At Whitehall, a fireman was instantly killed and six others died the next day.

May 18, 1894—F. C. Ross, West Bay City, engineer instantly killed and five persons injured; loss, several thousand dollars.

August 23, 1894—Slight explosion in the Journal office, Ithaca; slight damage; no one hurt.

January 21, 1895—Brownlee & Co., Delray, near Detroit; engineer instantly killed; loss, \$3,000.

February 3, 1895—At Muskegon, Gray Bros.; watchman instantly killed; loss, \$12,000; the entire plant was destroyed.

November 6, 1895—At Detroit; explosion in Journal building. There were 37 killed and 19 injured.

Apparently there is a demand for a law providing for a rigid inspection of steam boilers. People will differ as to this inspection. Some will favor a State inspection, while others will deem an inspection under municipal authority better. Municipal inspection may answer in cities and large villages. State inspection could reach every boiler in the State.

It is unnecessary here to go into details of what the inspection should cover or how often an inspection should be made. It might be made a separate bureau or it might be made a part of factory inspection. In either case only well known experts should be employed as inspectors. A moderate inspection fee to be paid by owners would meet the expense of inspection and publication of reports. In connection with this should be an examination of engineers. Too many men who only know enough to "turn on steam" are entrusted with the duties of engineers. Too often the engineer is the "man of all work" so far as care of machinery is concerned, often calling him away from the engine room. Under such circumstances an engineer can hardly be held responsible if accidents occur. The appalling loss of life and immense destruction of property absolutely demand that all possible safeguards be provided for those employed around steam boilers.

PUBLIC BUILDINGS.

There are in Michigan hundreds of public buildings, including hotels, public halls and mercantile establishments that are veritable fire traps. Many hotels are without external fire escapes of any kind. Stairways and elevators in case of fire are simply flues for passage of smoke and flame. It would be little less than a miracle if guests in hotels of this kind should all escape in case of fire.

Public halls in many cases are reached by narrow stairways and corridors. In case of an alarm of fire a stampede could hardly be averted in which the loss of life would be fearful. Many mercantile houses employ people on upper floors. Very often goods of an inflammable nature are stored there for repacking or for future use. In case of an accident creating a fire the horrors of the Edson, Moore & Co. fire would be repeated. If human lives are valued, the safety of people in all public buildings should be cared for. The laws of the State should provide for an inspection of these places.

INTERNATIONAL ASSOCIATION OF FACTORY INSPECTORS.

More than half of the states have laws providing for factory inspection. In several states it is made a separate bureau. In others it is controlled by the Bureau of Labor and Industrial Statistics. Appropriations for its support are from \$1,000 or \$2,000 in some states to nearly \$100,000 in others. Some states have one or two inspectors, other states as many as thirty. In some states the jurisdiction is very limited, covering an,

inspection of certain factories, while in others the inspection includes not only an inspection of factories, but all public buildings, mercantile establishments, hotels, schoolhouses, churches and boiler inspection. Massachusetts, New York, Pennsylvania, Ohio and New Jersey, in the order named, have the largest appropriations and the largest number of inspectors.

An international association of factory inspectors has been formed, including in its membership the inspectors from the different states and Canada. Conventions have usually been held annually. The convention of 1895 was held in September, at Providence, Rhode Island. These conventions are most valuable, giving an opportunity for exchange of ideas and observations upon the work.

Michigan was represented in the conventions of 1894 and 1895. At the last convention the Commissioner of Labor was elected president of the association.

APPRECIATIVE.

The Commissioner of Labor appreciates the intelligent and active assistance he has received from Hon. H. R. Dewey, Deputy Labor Commissioner. In the office and in supervision of the inspection his services have been valuable.

The office work in all its details has been under the charge of Mr. L. S. Russell, chief clerk. The compilation of this report is evidence of the ability he has brought to the work. No effort has been spared on his part to make the work successful. The Commissioner recognizes fully the valuable services rendered by Mr. Russell.

The selection of Miss Florence Orbison for stenographer was a fortunate one. She has mastered the details of the office work far beyond expectations and made herself a valuable addition to the office force.

LAW RELATING TO INSPECTION OF FACTORIES.

[Act No. 124 Session Laws, 1895.]

AN ACT to provide for the inspection of all manufacturing establishments and workshops in this State, and to provide for the enforcement, regulation and inspection of such establishments, and the employment of women and children therein.

SECTION 1. *The People of the State of Michigan enact*, That no male under the age of eighteen years and no female under the age of twenty-one years shall be employed in any manufacturing establishment in this State for any longer period than sixty hours in one week unless for the purpose of making necessary repairs to machinery in order to avoid the stoppage of the ordinary running of the establishment: *Provided*, That no more than ten hours shall be exacted from such male minors or females under twenty-one years on any day unless for the purpose of making a shorter work day on the last day of the week.

SEC. 2. No child under fourteen years of age shall be employed in any manufacturing establishment in this State. It shall be the duty of every person employing children to keep a register, in which shall be recorded the name, birthplace, age and place of residence of every person employed by him under the age of sixteen years; and it shall be unlawful for any manufacturing establishment to hire or employ any child under the age of sixteen years without there is first provided and placed on file a statement in writing made by the parent or guardian, stating the age, date and place of birth of said child. If said child have no parent or guardian, then such statement shall be made by the child, which statement shall be kept on file by the employer, and which said register and statement shall be produced for inspection on demand made by any factory inspector appointed under this act.

SEC. 3. No child under the age of sixteen years shall be employed by any person, firm or corporation conducting any manufacturing establishment in this State, at employment whereby its life or limb is endangered, or its health is likely to be injured, or its morals may be deprived by such employment. No female under the age of twenty-one years and no male under the age of eighteen years shall be allowed to clean machinery while in motion.

SEC. 4. Factory inspectors shall have power to demand a certificate of physical fitness from the county physician, who shall make such examination free of charge in the case of persons who seem physically unable to perform the labor at which they may be employed, and shall have power to prohibit the employment of any person that cannot obtain such a certificate: *Provided*, This section shall not apply except to children under sixteen years of age.

SEC. 5. It shall be the duty of the owner, agent or lessee of any manufacturing establishment where hoisting shafts or well holes are used to cause the same to be properly inclosed and secured. It shall also be the duty of the agent, owners, agents or lessees to provide or cause to be provided at all elevator openings such proper trap or automatic doors or automatic gates so constructed as to open and close by the action of the elevator either ascending or descending.

SEC. 6. Fire escapes shall be provided for all manufacturing establishments two or more stories in height if, in the opinion of the factory inspector, it is necessary to insure the safety of the persons employed in such establishments; said fire escapes or means of egress, or as many thereof as may be deemed sufficient by the inspector, shall be

provided, and where it is necessary to provide fire escapes on the outside of such establishments, they shall consist of landings or balconies at each floor above the first, to be built according to specifications approved by the factory inspector. The windows or doors leading to all fire escapes shall open outwardly, or upwardly when provided with a counter balancing weight, said windows or doors to be not less than thirty-six (36) inches in height and thirty (30) inches in width. All fire escapes shall be located as far as possible, consistent with accessibility, from the stairways and elevator hatchways or openings; and the ladder thereof shall extend to the roof. Stationary stairs or ladders shall be provided on the inside from the upper story to the roof as a means of escape in case of fire. Signs indicating the way to fire escapes shall be placed in conspicuous places. Factory inspectors shall in writing notify the owner, agent or lessee of such manufacturing establishment of the required location and specifications of such fire escape as may be ordered.

SEC. 7. Proper and substantial handrails shall be provided on all stairways in manufacturing establishments, and where in the opinion of the factory inspector it is necessary, the steps of such stairs in all such establishments shall be substantially covered with rubber securely fastened thereon for the better safety of persons employed in said establishments. The stairs shall be properly screened at sides and bottom where females are employed, and where practicable the doors of such establishments shall swing outwardly or slide as ordered by said factory inspector and shall be neither locked, bolted or fastened during working hours.

SEC. 8. It shall also be the duty of the owner of such factory, or his agent, superintendent or other person in charge of the same, to furnish or supply or cause to be furnished and supplied, in the discretion of the factory inspector, where machinery is in use, proper shifters or other mechanical contrivances for purpose of throwing belts on or off pulleys. All gearing or belting shall be provided with proper safeguards, and wherever possible, machinery shall be provided with loose pulleys. All vats, saws, pans, planers, cogs, set screws, gearing and machinery of every description shall be properly guarded when deemed necessary by the factory inspector.

SEC. 9. Exhaust fans shall be provided for the purpose of carrying off dust from emery wheels and grindstones, and dust creating machinery, wherever deemed necessary by the factory inspector.

SEC. 10. Every factory in which five or more persons are employed and every factory or workshop in which two or more children, young persons or women are employed shall be kept in a cleanly state and free from effluvia arising from any drain, privy or other nuisance, and shall be provided within reasonable access with a sufficient number of proper water closets, earth closets or privies, for the reasonable use of the persons employed therein, and whenever two or more male persons and two or more female persons are employed as aforesaid together, a sufficient number of separate and distinct water closets, earth closets or privies shall be provided for the use of each sex, and plainly so designated, and no person shall be allowed to use any such closet or privy assigned to persons of the other sex.

SEC. 11. Not less than forty-five minutes shall be allowed for the noonday meal in any manufacturing establishment in this State. Factory inspectors shall have power to issue written permits in special cases, allowing a shorter meal time at noon, and such permit must be conspicuously posted in the main entrance of the establishment, and such permit may be revoked at any time the inspector deems necessary, and shall only be given where good cause can be shown.

SEC. 12. The Commissioner of Labor, Deputy Commissioner of Labor and Deputy Factory Inspectors shall be factory inspectors in the meaning of this act, and are hereby empowered to visit and inspect at all reasonable hours, and as often as practicable or required, the factories, workshops and other manufacturing establishments in the State where the manufacture of goods is carried on. Deputy factory inspectors shall report to the Commissioner of Labor of this State at such time and manner as he may require. It shall also be the special duty of factory inspectors to enforce all the provisions of this act, and to prosecute for all violations of the same, before any magistrate or in any court of competent jurisdiction in this State.

SEC. 13. Deputy factory inspectors shall make a report to the Commissioner of Labor of each factory visited and inspected by them, which report shall be kept on file in the office of the commissioner. Deputy factory inspectors shall have the same power to administer oaths as is now given to notaries public, in cases where persons desire to verify documents connected with the proper enforcement of this act.

SEC. 14. Nothing in this act shall apply to canning factories or evaporating works, but shall apply to any other place where goods, wares, or products are manufactured, repaired, cleaned or sorted in whole or in part; but no other person, persons or corpora-

tion employing less than five persons or children, excepting in any of the cities of this State, shall be deemed a manufacturing establishment within the meaning of this act.

Sec. 15. For the purpose of carrying out the provisions of this act, the Commissioner of Labor is hereby authorized and required to cause at least an annual inspection of the manufacturing establishments or factories in this State. Such inspection may be by the Commissioner of Labor, the Deputy Commissioner of Labor, or such other persons as may be appointed by the Commissioner of Labor for the purpose of making such inspection. Such persons shall be under the control and direction of the Commissioner of Labor and are especially charged with the duties imposed, and shall receive such compensation as shall be fixed by the Commissioner of Labor, not to exceed three dollars per day, together with all necessary expenses. All compensation for services and expenses provided for in this act shall be paid by the State Treasurer upon the warrant of the Auditor General: *Provided*, That not more than eight thousand dollars shall be expended in such inspection in any one year: *And provided further*, That the Commissioner of Labor shall present to the Governor on or before the first day of February, eighteen hundred ninety-six, and annually thereafter, a report of such inspection with such recommendations as may seem necessary: *And provided further*, That in addition to the above allowance for expenses there may be printed, not to exceed two thousand copies of such reports for the use of the Labor Bureau, for general distribution. And all printing, binding, blanks, stationery, supplies or map work shall be done under any contract which the State now has or shall have for similar work with any party or parties, and the expense thereof shall be audited and paid for in the same manner as other state printing.

Sec. 16. The prosecuting attorney of any county of this State is hereby authorized and required upon the complaint on oath of the Commissioner of Labor or factory inspectors to prosecute to termination before any court of competent jurisdiction, in the name of the people of the State, actions or proceedings against any person or persons reported to him to have violated the provisions of this act.

Sec. 17. Any person who violates or omits to comply with any of the foregoing provisions of this act, or who interferes in any manner with the factory inspector in the discharge of his duties or who suffers or permits any child to be employed in violation of its provisions, shall be deemed guilty of a misdemeanor and on conviction shall be punished by a fine of not less than five nor more than one hundred dollars or, by imprisonment for not less than ten nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

Sec. 18. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

This act is ordered to take immediate effect.

Approved May 22, 1895.

STATE OF MICHIGAN, }
Office of the Secretary of State. } ss.

I, JOS. W. SELDEN, Deputy Secretary of State of the State of Michigan, *Do Hereby Certify*, That I have compared the annexed copy of an act of the Legislature of the State of Michigan approved May 22, 1895, and filed in this office May 23, 1895, with the original now in this office, and that it is a true and correct transcript therefrom, and of the whole of such original.

In Testimony Whereof, I have hereunto set my hand and affixed the great seal of the State of Michigan, at Lansing, this twenty-third day of May, in the year
[L. s.] of our Lord one thousand eight hundred and ninety-five.

JOS. W. SELDEN,
Deputy Secretary of State.

SUMMARY OF WORK IN THE FIRST INSPECTION DISTRICT.

OFFICE OF DEPUTY INSPECTOR, }
Detroit, December 24, 1895.

HON. C. H. MORSE,

Commissioner of Labor, Lansing, Mich.:

DEAR SIR—In accordance with your instructions of November 30, I submit the following report of factories inspected, number of changes ordered and number complied with, during the three years the factory inspection law has been in effect in this State.

This includes a great many orders made last year in Monroe and Macomb counties, of which I have no way of knowing whether they were complied with or not, as those two counties were transferred to the second district. Owing to the amount of territory this district was composed of last year, I was not able to revisit the portion of my work in those two counties, and this year they are out of my jurisdiction. This accounts for so many orders in 1894 report not being reported as complied with. The same fact shows in 1895 report, and the same reasons, I believe, hold good in a great many factories where changes have been ordered during this year. I have not been able to visit them since the inspection was made. I have made 272 revisits during the year which I have kept a record of, and I find 402 compliances, leaving 218 not accounted for, but had I the time to go over all of my district that number would be greatly decreased. However, there are a great many who are waiting until the holiday week to make their changes, especially those who have orders pertaining to elevators, in order to have the use of them during the busy season, then repair when closed for general repairs.

Table showing factory inspection since September 1, 1893.

Kinds of changes ordered.	1893.		1894.		1895.	
	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.
Fire escapes	55	50	15	14	22	14
Automatic gates and other elevator protection	14	11	15	10	63	30
Guards for hatchway, wells and vats	4	4	9	4	31	27
Guards for machinery of all kinds	23	25	45	34	173	58
New water closets	2	2	4	4	14	10
Closets repaired and cleaned	2	2	2	2	5	5
Hand rails and other stair protection	125	103	123	77	129	55
Doors changed	15	13	9	8	1	1
Ladders to roof	6	6	2	1	5	3
Repairs on buildings	8	8	2	2	5	3
Blowers ordered and repaired	2	1	8	5	6	1
Obstructions removed from fire escape windows	13	3	2	2	2	2
Children under fourteen years	23	23	90	90	73	73
Number of places where children have been ordered registered	12	12	35	33	37	37
Whole number of orders and compliances	382	309	363	291	620	403

Whole number of factories inspected in 1893	636
Whole number of factories revisited in 1893	284
Whole number of factories inspected in 1894	1,019
Whole number of factories revisited in 1894	258
Whole number of factories inspected in 1895	1,005
Whole number of factories revisited in 1895	272
Whole number of inspections since September 1, 1893	2,705
Whole number of factories revisited since September 1, 1893 ..	614

A GENERAL REVIEW OF THE YEAR'S WORK.

A year ago as I looked over my district which was at that time cut down to Wayne county, I felt that I had pretty well covered the ground in the past. Therefore, I thought that in the year to come I should be able to devote more time to office work and revisiting factories where orders had been given, and especially to spend more time in the large factories where it seemed necessary in order to know more of them and the managers, superintendents and foremen, that they might become better acquainted with the law, its objects and aims. I have found many cases where the law was being openly violated for the reason that the foreman had no knowledge of it. Perhaps he had received some instructions on the matter, but with no reason why they should be complied with. I call several times and talk with those higher in authority about the matter, and they agree to have it attended to at once, but I suppose by the time they get to

the factory they have forgotten it. Finally I meet the foreman and call his attention to it. He always has some objection to it, but when the matter is explained, and a suggestion is offered how the objection can be overcome, it is usually taken care of at once. In ordering small matters in such cases the order is generally complied with at once. As I have said, I felt the need of more of this experience, and felt sure that I should get more of it this year, but in this respect I have been disappointed.

I find at the close of this year's work more factories inspected and nearly double the orders given than in the previous year, and my district not all thoroughly canvassed, after all. However, all of the large and important factories have been followed pretty closely this year. One thing that has taken up much of my time this year that I had not calculated on is reports from various people and the labor organizations. About all the different branches here have some grievances in which they expect the factory inspector to help them out. In some cases their complaints are just ones, while in others it is outside of our jurisdiction.

There is another matter I would call attention to which has taken some time this year. All who contemplate building or remodeling factories would do well to submit their plans to the inspectors. It is much easier to change plans than to change buildings. There are several instances where plans have been submitted to me in which I have shown the parties where they could change some objectionable features, and at the same time get the room and convenience they need. In one instance we figured the difference in cost had the plans been followed or the suggestions offered, and the result was very gratifying to both. There could be but little objection to this if those about to build or remodel fully understood its advantages.

This is the rule followed by Detroit. When a tenant is about to go to a new location an inspection is asked, often before the lease is made. This is done to know the requirements of the law. The matter of who shall make the necessary changes is then settled, and the work is usually done before the tenant takes possession. This would be much better for both tenant and inspector.

ELEVATORS.

There is much that might be said on this subject, where there are so many elevators in use. I find in my district about 830 of all kinds, and about 160 of these are operated by hand, and by no means are all in as good condition as they ought to be, and through this condition find a great many accidents have happened. But, strange as it may seem, it is hard to get information necessary for an accident report, where it has happened on an elevator. I have obtained this information only in two cases during the

year direct from the managers or superintendents. In other cases, which I incidentally found, I obtained full particulars from persons injured or members of the family.

Section 5 provides for some automatic device for all elevator openings. I have tried to enforce this section, and have accomplished some work along this line, but have met with great objections to the automatic gates in some factories where they have had a cheap device in use for a time. After a time they get out of order and disable the elevator, then are condemned. In this way a good device in many cases is condemned, and managers feel hard if compelled to erect something which will protect their elevators, as they often feel they will not be permanently benefited. There are devices which are being used in my district which ought to remove these prejudices. They are being overcome and in the past six months more work has been done than in all the previous time since the factory law went into effect.

Equipping the hand elevator with automatic gates is a matter I have considered a long time, as it is just as essential they should have protection, as a steam hoist, but we are confronted with this question: "Where can we get the power to operate them?" I think I can answer that question by referring them to a neat device, operated largely by a counter balance weight, and so little power is required by the elevator that it is hardly felt.

FIRE ESCAPES.

There is little to be said upon this subject in this district. Not but what I feel the importance of fire escapes of some kind, in or on all buildings three or more stories in height, but I am sure all buildings that come under our jurisdiction here are well provided with escapes or means of exit, excepting a few where I have ordered escapes to be put up within a short time.

The necessity of having good means of escape on all high buildings has been fully demonstrated here in the city of Detroit within the past two years, especially in the fire of Edson, Moore & Co., and the Geo. F. Case livery barn, where so many lives were sacrificed, there being, but few fire escapes on those buildings. As a general rule, people who own the large buildings here do not hesitate to put up the necessary fire protection. There are some new buildings that should have them, and some of the old ones which are being changed, makes it necessary to give occasional orders. Most of the modern factories are now being equipped with brick encased stairways, in other words, stairs built inside of four brick walls, with iron, self-closing doors at each floor. This, to my mind, is the safest fire escape manufactured.

GUARDING MACHINERY.

In this district, like all others where factory inspection is new, there is much to be done in the line of guarding machinery. Many of these things the managers are willing to do. The set-screw, which first picks up some part of the clothing and drags its victim to death in a moment's time, should be covered by all means, or replaced with a counter-sunk screw. Exposed set-screws look harmless to the inexperienced person, but they are generally very dangerous. When I order set-screws guarded, especially if I am dealing with a machinist, I waste no time in argument.

All late improved machinery has the gearing well guarded when it comes from the manufacturer, but there are a great many things, such as iron shears, coiling machines, belts, fly wheels and dangerous places, where the inspector cannot be too careful. "Eternal vigilance is the price of safety."

CHILD LABOR.

The employers of children labor under many difficulties in ascertaining the correct ages of children, because parents in many cases represent the child to be of legal age to work in factories, when they are not.

The laws of the State provide for a written statement made by the parents or guardian, stating the age, date and place of birth of every child between the ages of fourteen and sixteen employed, to be kept on file by the employer, and subject to the inspection of the inspector. Said law does not provide for any penalty for false statements made by parents, whose intent is to evade the provisions of this act. I have had great difficulty in some sections of my district to prevent this being practiced. After a thorough investigation of the matter in many factories where I had good reason to believe the employers were being imposed upon with false statements, and after convincing them with proof, from the church records, school census and school certificates, the managers of the large factories in Detroit have adopted a plan, whereby they compel the parents of all children where there is any doubt of their not being fourteen years old, to go before a notary public and make oath to said statement. This has a good effect upon the parents. The law could be made more operative by requiring the parents or guardian to furnish sworn certificates of the birth and age of their children.

I find in nearly all cases, the employers are willing to comply with the sections of the law governing child labor, and have found only two cases during the year where I have been compelled to prosecute for its violation—the Hall Brick Company, and the Eagle Paper Box Company.

ACCIDENTS.

This has been an unusual year for accidents in this city. A number I know of were not reported, and there was no way for me to find the necessary information to make the report complete, nor will there be until the law requires manufacturers to report all accidents, either to the chief inspector or his deputies within a given length of time. Some other states have such a law. I have found this year and previous years instances where the managers claim they have had no accidents, when I know there has been one or more. When I call their attention to certain cases they generally admit it, but in some cases refuse to give any information. When I can, I look up the person injured and take his statement.

I report 86 accidents this year, of which about 40 were fatal. Of this number 33 were caused by the boiler explosion at the Detroit Journal office, Nov. 6, and at the same time 12 others were injured, but I report only the number as given above, as the others were not employed by any manufacturing firm, merely passers by, or onlookers.

I have not been able to make a full report of each case injured in this accident, as it happened so near the close of my year's work, and so much chaos existed that I could obtain no satisfactory and reliable information.

CONCLUSION.

In conclusion I would say that in most cases my orders were received in a kindly spirit and complied with as promptly as could be expected, and in many cases after the work had been finished I received thanks from the managers or superintendents, with the statement that they felt this factory law to be a good thing for both employers and employes. One manager thinks the inspectors do not visit the factories often enough.

Occasionally my orders are criticised, but I always suggest that the matter be referred to the chief inspector or to the board of city building inspectors. Several cases have been referred to the latter, and in each case they have sustained my recommendations. There has been but little friction in carrying out the spirit and letter of the various laws enacted for the safety and comfort of employes, of whose safety and comfort fair-minded employers are watchful. It is a satisfaction to report that the courtesy shown to the inspector of this district by the manufacturers and officers in their readiness to carry out the recommendations made, or orders given, are very gratifying indeed, and gives us a desire to do better work the coming year.

Very respectfully yours,

WM. F. TRIPP,
Deputy Inspector.

Inspection book No. 1.

TABLE No. 1.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
1	Jan. 14	Detroit.	Globe Tobacco Co.	Tobacco	run.	full
2	" 14	"	D. A. C. Cigar Factory.	Cigars	"	"
3	" 14	"	Cabinet Cigar Co.	"	"	"
4	" 14	"	Val. Schroder	Candies	"	"
5	" 14	"	A. W. Brooks	Printed matter	"	"
6	" 15	"	C. Lingsman & Co.	Umbrellas and parasols	"	"
7	" 15	"	J. C. Harts	Hats and caps	"	"
8	" 15	"	H. H. Stender	Cigars	"	"
9	" 15	"	J. P. Liebermann	"	"	"
10	" 15	"	Geo. J. Heck	Printed matter	"	"
11	" 16	"	Shellfish & Gornetaky	"	"	"
12	" 16	"	Fred Delner	Upholstering	"	"
13	" 16	"	Hersie & Kummerfeld	Cigars	"	"
14	" 16	"	Wm. Lindermann	Wagons and trucks	"	"
15	" 16	"	Globe Laundry	Laundry work	"	"
16	" 16	"	E. Fuchs & Son	Wood turning	"	"
17	" 17	"	John Wacker	Barrels	"	"
18	" 17	"	C. Baumann & Son	Wagons and trucks	"	part
19	" 17	"	Gruber & Wilson	Brushes	"	full
20	" 17	"	C. Rohde Wagon Works	Wagons	"	"
21	" 18	"	J. F. Webber & Co.	Sash, doors and blinds	"	part
22	" 18	"	A. Muer Cigar Factory	Cigars	"	full
23	" 18	"	Nagel & Lemkie	Wagons	"	"
24	" 18	"	Krapp Bros.	Cigars	"	"
25	" 18	"	Koppits & Melchers Brew'g Co.	Beer	"	"
26	" 18	"	Koppits & Melchers Bottling W'ks	Bottled beer	"	"
27	" 18	"	A. Osebold	Church furniture	"	part
28	" 19	"	H. Heck, Jr.	Sash, doors and blinds	idle	"
29	" 19	"	Kansier & Brey	Wagons	run.	full
30	" 19	"	H. Krutz	Cigars	"	"
31	" 19	"	Honer Brewery	Beer	"	"
32	" 19	"	Hoffmann Mfg Co.	Furniture	"	part
33	" 21	"	A. H. Jackson	Knee pants	"	"
34	" 21	"	Columbia Brew'g Co.	Beer	"	full
35	" 21	"	The Handy Patent Brush Co.	Brushes	"	"
36	" 21	"	Golse & Co.	Bottled beer	"	"
37	" 21	"	M. Jacobson & Son	Rags and iron	"	part
38	" 22	"	Detroit Bedding Co.	Beds and Pillows	"	"
39	" 22	"	P. H. Nagel	Beer	"	full
40	" 22	"	A. Simons	Rags and metal	"	"
41	" 22	"	M. Reichstein	Rags	"	"
42	" 22	"	I. L. Scheinman	Cigars	"	"
43	" 22	"	J. London	Clothing	"	part
44	" 23	"	Phoenix Brewery	Beer	"	full
45	" 23	"	R. Freedman & Co.	Rags and iron	"	"
46	" 23	"	Hutteman & Cramer Co.	Machinery	"	part
47	" 23	"	D. Epstein	Rags	"	full
48	" 23	"	Home Brewing Co.	Beer	"	"
49	" 23	"	Theo. Haling	Wagons	"	"
50	" 23	"	Western Cigar Box Co.	Cigar boxes	"	part

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1898.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
1	55	55	300	117	150				9 3/4	\$7,000	45	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	yes
2	45	45	20	9	3			yes	10	400	60												
3	45	45	25	20	5			no	10	900	60												
4	60	60	25	8	12			yes	10	550	60							no	yes	yes			
5	54	54	5	5					9	180	60								yes	yes			
6	60	60	10	7	8				10	480	60										no		yes
7	60	60	4	4			1	yes	10	175	60												
8	45	45	4	4					10	175	60			yes	yes								
9	45	45	14	5	8				9	350	60												yes
10	54	54	4	4					9	160	60							yes	yes				
11	54	54	4	4					9	150	60												
12	60	60	30	10	2				10	450	60		yes				yes						yes
13	45	45	8	4					10	200	60												
14	60	60	18	10					10	400	60												
15	54	54	12	4	4				9	250	60		yes				yes	yes	yes				
16	60	60	4	4					10	150	60												
17	60	60	20	4					10	200	60												
18	60	60	4	4					10	180	60												
19	60	60	14	2	3				10	150	60							yes	yes				
20	60	60	12	8					10	800	60												
21	90	30	12	8					10	300	* 30			no	no								
22	44	48	16	14	2		1	no	8	750	60			yes	yes								yes
23	60	60	4	4					10	175	60												
24	45	48	12	4					8	200	60												
25	60	60	28	25					10	1,250	60		yes				yes	yes	yes				
26	60	60	10	6	2				10	300	60												yes
27	60	48	10	5					10	200	60			yes	yes								
28	60		30	4					10														
29	60	60	4	4					10	180	60	yes		yes	yes	yes	no				no	yes	no
30	45	48	4	2	1		1	yes	8	150	60												
31	60	60	5	4					10	200	60			no	no			yes	yes				
32	90	20	20	14					10	350	60						yes						
33	60	48	12	2	1				10	175	60			yes	yes								yes
34	60	60	7	5					10	260	60			no	no								
35	60	60	14	6			2	yes	10	250	60			yes	yes								
36	60	60	4	4					10	200	60												
37	54	48	20	2	5				10	250	60	no	no										yes
38	60	48	12	10	2				10	400	60	yes	yes					yes	yes				
39	60	60	4	4					10	200	60												
40	60	60	12	5	2				10	225	60		yes				yes						yes
41	60	60	14	2	12				10	400	60												
42	60	60	25	10	13		2	no	10	625	60												
43	60	54	20	7	5				9	450	60							yes	yes				
44	60	60	11	10	1				10	550	60												no
45	54	54	8	4					9	175	60	no											
46	60	54	40	25					10	1,000	45	yes					yes	yes	yes				
47	54	54	12	4	2				9	160	60		no	no	no								yes
48	60	60	10	10					10	500	60		yes	yes	yes			yes	yes				
49	60	60	5	4					10	200	60			no	no								
50	60	54	100	35	40		11	yes	10	1,550	45		yes	yes	yes			yes	yes	yes			yes

* Permit given by inspector.

Inspection book No. 2.

TABLE No. 1.—CONTINUED.—

No. given factory for 1893.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
51	Jan. 25	Detroit.	J. P. Benoit.	Machinery	idle	
52	" 25	"	Jacob Barnstine	Rags and metal	run.	full
53	" 25	"	A. J. Herrmann.	Cigars	"	"
54	" 25	"	Pullman Palace Car Co.	Sleeping cars	idle	
55	" 25	"	Star Carpet Cleaning Works.	Carpet cleaning	run.	part
56	" 26	"	Gilman Carpet Cleaning Works.	" "	idle	
57	" 26	"	Progressive Cigar Co.	Cigars	run.	full
58	" 28	"	Castle Laundry	Laundry work	"	"
59	" 28	"	P. Stenius	Baskets	"	part
60	" 28	"	Michigan Fish Hatchery	Fish	"	full
61	" 29	"	A. J. Orth.	Tinware	"	part
62	" 29	"	M. F. Hope & Co.	Woolen rags	"	"
63	" 29	"	Hutton Bros. & Co.	Tin and slate roof	"	"
64	" 29	"	Bartle & Saladin.	Bread and cakes	"	full
65	" 30	"	J. W. Weinstein & Co.	Rags	idle	
66	" 30	"	E. Huebner, Jr.	Sash, doors and blinds	"	"
67	" 30	"	H. L. Myll	Sorts scrap papers	run.	full
68	Feb. 11	"	Murdock Valve Co.	Valves and brass	"	part
69	" 11	"	Zacharias & Mason	Shirt waists	"	full
70	" 13	"	Maynard & Ellinger	Special furniture	"	part
71	" 13	"	W. Parent.	Wagons and carriages	"	"
72	" 13	"	A. E. Huns & Co.	Iron goods	"	"
73	" 13	"	Jenks & Muir Manufacturing Co.	Bedsteads	"	"
74	" 14	"	L. Crabb & Son	Brooms and brushes	"	"
75	" 14	"	Ebert Bros. & Co.	Iron and steel roofing	"	"
76	" 14	"	Johnson Manufacturing Co.	Jellies, etc.	"	"
77	" 14	"	Roe Stephens & Co.	Brass and iron valves	"	"
78	" 15	"	B. Guin & Boerth	Pies	"	"
79	" 15	"	O. A. Tarney	Fruits and jellies	"	"
80	" 15	"	C. O. Garrison	Cigar boxes	"	"
81	" 15	"	Lanhoff Boiler Mills.	Flour and feed	"	"
82	" 28	"	F. X. Rousseau	Tackle blocks	"	full
83	" 28	"	W. P. Carroll	Cigars	"	"
84	" 28	"	Globe Cigar Manufacturing Co.	"	"	"
85	" 28	"	Peter Hamming	"	"	"
86	Mar. 1	"	Miller Bros.	"	"	"
87	" 1	"	Damaika & Spader	Wagons and carriages	"	"
88	" 1	"	Aug. Bennett	Wagons	"	"
89	" 1	"	Otto Held	Cigars	"	"
90	" 1	"	J. W. Engel	"	"	"
91	" 2	"	M. Wolff & Bros.	"	"	"
92	" 2	"	Griswold Carpet Cleaning Works	Carpet cleaning	"	part
93	" 4	"	H. A. Burt	Carriages	"	full
94	" 4	"	Detroit Brush Works	Brushes	"	"
95	" 4	"	Wolverine Saw Works	Saws	"	"
96	" 4	"	Wolverine Electric Co.	Dynamos and motors	"	"
97	" 4	"	E. Marks & Co.	Cigars	"	"
98	" 5	"	H. A. Marks	Baskets	"	part
99	" 5	"	Canto Bros.	Cigars	"	full
100	" 5	"	Loyal American Cigar Co.	"	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1908.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are chuffers used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
51																							
52	54	54	18	4	14				8	\$500	80	yes	no	yes	yes	yes	no	yes	yes	yes	no	yes	yes
53	48	48	4	4					8	175	80												
54	80	80	600	5					10	180	60	yes		yes	yes	yes	no		yes	yes		yes	
55	54	54	5	4					10														
56	80	80	5	4					8														
57	48	48	10	4	1		1	yes	8	200	80	yes		yes	yes	yes	no						
58	54	54	8	4	4				8	300	80								yes	yes	no	yes	yes
59	54	54	17	4	2				10	200	80		yes					yes					
60	60	60	4	4					10	225	80												
61	80	54	10	5					10	140	60			yes	yes				yes	yes	no		
62	54	54	35	30					9	1,000	60		yes					yes					
63	54	45	40	35					9	500	60												
64	54	54	14	14					9	650	60								yes	yes			
65	80	80	14																				
66	80	80	30						9	300	60	no	no	yes	yes	yes	no	no	yes	yes	no	yes	yes
67	54	54	15	8	8				9	300	45	yes						yes	yes				
68	60	54	12	8					10	300	45	yes						yes	yes				
69	60	60	70	5	58				10	1,100	60							no	yes				
70	54	48	12	5					10	200	60							yes					
71	80	48	8	5					10	180	60												
72	54	54	12	6					10	240	45							yes	yes				
73	80	54	100	40	10				10	1,900	45		yes										
74	80	54	15	9	1				10	850	60												
75	80	54	80	20					10	1,000	45		yes	no	no								
76	80	54	6	5					10	300	60			yes	yes								
77	80	54	100	68	1				10	3,800	30		yes										
78	80	54	10	5	2				10	800	60			no	no								
79	80	54	8	5					10	200	60												
80	80	54	20	8	4				10	375	60			yes	yes								
81	80	30	8	3					10	140	60			no	no								
82	80	60	15	6					10	250	30			yes	yes								
83	48	48	5	3	1				8	100	60												
84	48	48	6	4					8	120	60												
85	48	48	3	3					8	140	60												
86	48	48	5	3					8	120	60												
87	80	60	5	3					10	110	60		yes	yes									
88	80	60	5	4					10	135	60												
89	48	48	4	4					8	180	60											yes	no
90	48	48	5	3					8	100	60											yes	yes
91	48	48	6	5	1				8	250	60											no	
92	54	60	6	3					10	130	60		yes	yes					yes	yes			
93	80	60	6	5					10	200	60												
94	80	60	40	12	8		1	no	10	500	60		no					yes	yes	yes			yes
95	80	60	12	4					10	200	45												
96	80	60	12	4					8	200	60			yes	yes								
97	48	48	15	6	8				8	400	60												
98	80	54	12	5					10	300	30												
99	48	48	12	4					8	130	60												
100	48	48	8	5					8	250	60	yes											

* Permit given by inspector.

Inspection book No. 3.

TABLE No. 1.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
101	Mar. 5	Detroit.....	Citizen's Cigar Co.	Cigars	run.	full
102	" 5	"	A. Funke	Ale and mineral water	"	"
103	" 6	"	L. Rindleseli	Cigars	"	"
104	" 6	"	Michigan Bottling Works	Beer and pop	"	"
105	" 6	"	Marsh & Lawrence	Mineral water	"	part
106	" 6	"	Detroit Metal Co.	Rags and metal	"	"
107	" 6	"	M. Rubenstein	Cigarettes and tobacco	"	full
108	" 7	"	Krontrier Bros.	Boot and shoe lasts	"	part
109	" 7	"	L. P. Tuttle	Cigars	"	full
110	" 7	"	Mardion Bros.	Carriages	"	part
111	" 7	"	A. G. Lamberg & Co.	Cigars	"	full
112	" 7	"	James Hartness & Co.	Soap and Potash	"	"
113	" 8	"	P. Gerhars	Cigars	"	"
114	" 8	"	Wm. Tegge & Bros.	"	"	"
115	" 8	"	H. Lemmer	Marble	"	"
116	" 8	"	Louis Baeker	Hardware specialties	"	"
117	" 8	"	J. M. Ederlin	Cigars	"	"
118	" 9	"	T. Funke	"	"	part
119	" 9	"	C. Meiser	"	"	full
120	" 9	"	N. H. Faber	"	"	"
121	" 11	"	A. F. Pudrith	Roofing and cornices	"	"
122	" 11	"	H. Frankenstine	Cigars	"	part
123	" 11	"	Joe Lichenstine	"	"	full
124	" 11	"	L. H. Beck	Hides and wool	"	"
125	" 12	"	L. Berkovich	Cigars	"	"
126	" 12	"	J. Gumbinski	Rags and Iron	"	"
127	" 12	"	S. Eisey	Marble and stone	"	"
128	" 12	"	M. Shiffman	Rags	"	"
129	" 12	"	M. Davis	"	"	"
130	" 12	"	J. N. Dodge	Decoy ducks	"	part
131	" 12	"	Harris & Finklestein	Slippers	"	full
132	" 12	"	A. F. Wettlauffer	Cigars	"	"
133	" 12	"	C. Pokorny	"	"	"
134	" 12	"	John Rueter	Rags and Iron	"	"
135	" 14	"	A. Luttermoer	Clothing	"	"
136	" 14	"	Geo. Mobes & Co.	Cigars	"	"
137	" 14	"	J. A. McElowney	Brooms	"	part
138	" 14	"	Morton Baking Co.	Bread and cakes	"	full
139	" 14	"	Home of Industry	Brooms and chair seats	"	part
140	" 15	"	Chas. Manselmann	Brooms	"	full
141	" 15	"	O. E. Hins	Cigars	"	"
142	" 15	"	H. W. Koehler	Carriages	"	part
143	" 15	"	H. Japes & Co.	Sash, doors and blinds	"	full
144	" 15	"	Ignatz Wolff	Snuff and tobacco	"	"
145	" 15	"	Detroit Shoe Blacking Co.	Shoe blacking	"	part
146	" 18	"	Peters Bros. Carpet Clean'g W'ks.	Carpet cleaning	"	"
147	" 18	"	T. DeClaire	Clothing	"	full
148	" 18	"	J. J. Mantley	Brooms	"	part
149	" 18	"	J. H. Molitor	Cigars	"	full
150	" 18	"	A. Schmid	"	"	part

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1906.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 16 and females under 16 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shafts used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
101	48	48	10	5	1				8	\$200	80	yes											yes
102	80	80	5	4					10	150	80			yes					yes	yes			
103	48	48	5	4					8	110	80												
104	80	80	6	5					10	180	80								yes	yes			
105	80	80	6	5					10	190	80								yes	yes			
106	80	80	20	9	4				10	250	80		yes	yes	yes								yes
107	54	54	7	3	2				9	200	80			yes					yes	yes			
108	80	80	18	13					10	650	45		yes					yes	yes	yes			
109	48	48	2	2					8	200	80								yes	yes			yes
110	80	80	7	7					10	400	80		yes	yes	yes			yes	yes	yes			
111	48	48	2	5					8	180	80												
112	80	80	5	4					10	230	80								yes	yes			
113	48	48	5	4	1				8	150	80			yes	yes								yes
114	54	54	8	5	9				9	600	80				yes			no					
115	54	54	8	5					9	275	80												
116	48	48	7	3						120	80			no	no				yes	yes			
117	48	48	4	4					8	180	80			yes	yes								
118	48	48	9	8					8	200	80												
119	48	48	3	3			1	no	8	250	80												yes
120	48	48	6	5					8	235	80			yes	yes								
121	54	54	6	6					9	200	80								yes	yes			
122	54	54	12	4					8	235	80								yes	yes			
123	48	48	7	7	1				8	235	80					no	yes						yes
124	80	80	18	7					10	300	80					yes			yes	yes			
125	48	48	5	5			1	yes	8	110	80												
126	54	54	15	3	12				9	400	80		yes					no					yes
127	54	54	10	6					9	300	80												
128	54	51	17	3	14				9	450	80												yes
129	54	54	12	2	16				9	500	80		yes	no	no			yes					
130	80	80	15	9	3				10	500	45			yes	yes				yes	yes			
131	30	80	7	7					10	275	80												
132	48	48	5	5	2				8	130	80												yes
133	48	48	5	3	1				8	110	80												
134	54	54	12	5	13				9	600	80		yes	no	no								
135	54	54	15	3	6				9	350	80			yes	yes				yes	yes			
136	48	48	180	5					8	45		yes						yes					
137	80	54	6	4					10	130	80												
138	80	80	50	24	1				10	1,125	80		yes						yes	yes			yes
139	80	54	23	23					10	200	80												
140	80	80	23	15					10	500	*20												
141	48	48	6	4					8	150	80												
142	80	30	6	4					10	150	80												
143	54	54	12	12					9	450	80			no	no				yes	yes			
144	80	80	5	4					10	120	80			yes	yes								
145	80	30	4	4					10	115	80												
146	80	54	5	4					10	180	80			yes	yes				yes	yes			
147	54	54	5	5					9	100	80												
148	80	48	5	5					10	150	80												
149	48	48	3	3					8	160	80												
150	80	54	6	6					175														

* Permit given by inspector.

Inspection book No. 4.

TABLE No. 1.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
151	Mar. 19	Detroit.	F. DeGalen & Son	Wood turning	run.	part
152	" 19	"	A. Van Danhernd	Dressed lumber	"	full
153	" 19	"	Conrad Pfeiffer Brewery	Beer	idle	"
154	" 19	"	A. Van Slan Chisort Works	Chisort	idle	"
155	" 19	"	F. J. Dingemans	Shash, doors and blinds	run.	part
156	" 20	"	Geo. Bloss Brewery	Beer	"	full
157	" 20	"	G. Zinn	Cigars	"	"
158	" 20	"	Sam'l Bevenette	"	"	"
159	" 20	"	Leo Scheible & Co.	Dressed lumber	idle	"
160	" 20	"	Excelsior Button Co.	Buttons	run.	full
161	" 21	"	A. Hansen	Cigars	"	"
162	" 21	"	P. H. Kling Bottling Works	Bottled beer	"	"
163	" 21	"	P. H. Kling Brewing Co.	Beer	"	"
164	" 21	"	Model Laundry	Laundry work	"	part
165	" 21	"	L. C. Brossy	Coloring	"	full
166	" 21	"	Trangott, Schmidt & Son	Hides and wool	"	"
167	" 22	"	Advance Emery Wheel Co.	Emery wheels	idle	"
168	" 22	"	Peninsular Clay Pipe Co.	Clay pipes	run.	full
169	" 22	"	Chas. H. Gee	Cigars	"	"
170	" 22	"	Detroit Steel & Spring Co.	Steel and steel springs	"	"
171	" 22	"	Delray Feed Mill	Feed	idle	"
172	" 25	"	Geo. Kieler	Cigars	run.	full
173	" 26	"	L. M. Peters	Carpet cleaning and rugs	"	part
174	" 26	"	Mead & Co.	Machinery	"	"
175	" 26	"	Fisher Bros.	Glue	"	full
176	" 26	"	Detroit Basket Co.	Baskets	"	"
177	" 27	"	P. Baden	Men's clothing	"	"
178	" 27	"	John Pruma	"	"	"
179	" 27	"	J. P. Krepel	Barrels	"	"
180	" 28	"	J. Freda & Sons	Men's clothing	"	"
181	" 28	"	E. A. Berkholz	Baskets	"	part
182	" 28	"	H. G. Jonas	"	"	"
183	" 28	"	East End Foundry Co.	Castings	"	"
184	" 29	"	Detroit Hattan and Reed Works	Baby carriages, chairs, etc.	"	"
185	" 29	"	B. Korte & Son	Wagons and carriages	"	full
186	" 29	"	Mich. Bolt and Nut Works	Bolts and nuts	"	"
187	" 29	"	James Dean & Co.	Boats	"	part
188	" 29	"	M. A. Labinski	Clothing	"	full
189	Apr. 1	"	Detroit Boat Works	Boats	"	part
190	" 1	"	Detroit Iron and Furnace Co.	Pig iron	idle	"
191	" 1	"	Peninsular Iron Co.	"	run.	full
192	" 1	"	Mich. Ammonia Works	Ammonia	"	part
193	" 2	"	Union Iron Co.	Pig iron	idle	"
194	" 2	"	Detroit Gas Co.	Coal gas	"	"
195	" 2	"	Detroit Edge Tool Works	Machine knives	run.	full
196	" 2	"	Detroit Twist Drill Co.	Drills and chucks	"	part
197	" 2	"	Gaylord Iron Co.	Pig iron	idle	"
198	" 2	"	The Ireland & Mathews Mfg Co.	Stove trimmings, etc.	run.	full
199	" 3	"	Detroit Heating and Lighting Co.	Gas machines	"	part
200	" 3	"	Berry Bros.	Varnish	"	full

THIRD ANNUAL REPORT.

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District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1886.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?	
151	60	54	4	4	---	---	---	---	10	\$125	60	yes	---	yes	yes	yes	no	---	yes	yes	no	yes	---	
152	60	54	4	3	---	---	---	---	10	100	60	---	---	---	---	---	---	yes	---	---	---	---	---	
153	60	60	13	13	---	---	---	---	10	450	60	---	yes	---	---	---	---	---	---	---	---	---	---	
154	60	60	6	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
155	60	54	26	10	---	---	---	---	10	500	* 30	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---	
156	60	60	4	4	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---	
157	48	48	---	4	---	---	---	---	8	150	60	---	---	---	---	---	---	---	---	---	---	---	---	
158	48	48	4	3	---	---	---	---	8	115	60	---	---	---	---	---	---	---	---	---	---	---	---	
159	54	---	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
160	60	60	100	13	8	---	9	no	10	600	60	yes	---	yes	yes	yes	no	yes	yes	yes	yes	yes	yes	
161	48	48	8	3	1	---	---	---	8	100	60	---	---	---	---	---	---	---	---	---	no	---	no	
162	60	60	8	6	2	---	---	---	10	400	60	---	yes	---	---	---	---	---	yes	yes	---	---	---	
163	60	60	27	27	---	---	---	---	10	1,600	60	---	---	---	---	---	---	---	---	---	---	---	---	
164	60	54	8	3	3	---	---	---	10	170	60	---	---	---	---	---	---	---	---	---	---	---	yes	
165	60	60	28	5	7	---	---	---	10	500	* 30	---	yes	---	---	---	---	---	---	---	---	---	---	
166	60	60	20	20	---	---	---	---	10	750	60	---	---	---	---	---	---	---	---	---	---	---	---	
167	60	---	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
168	48	48	14	3	1	---	---	---	8	225	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	yes	
169	60	60	10	3	3	---	---	---	10	250	45	---	---	---	---	---	---	---	---	---	---	---	---	
170	60	60	310	308	2	---	---	---	10	5,500	45	---	---	---	---	---	---	---	yes	no	---	---	---	
171	60	---	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
172	48	48	4	2	1	---	---	---	8	110	60	yes	---	---	yes	yes	no	---	---	---	no	yes	yes	
173	60	54	12	3	2	---	---	---	10	180	60	---	---	yes	yes	---	---	yes	yes	yes	---	---	---	
174	60	54	20	8	---	---	---	---	10	325	* 30	---	---	no	no	---	---	---	yes	yes	---	---	---	
175	60	60	28	20	---	---	---	---	10	750	60	---	---	yes	yes	---	---	---	---	---	---	---	---	
176	60	54	6	3	---	---	---	---	10	125	60	---	---	---	---	---	---	---	---	---	---	---	---	
177	54	54	12	3	5	---	---	---	9†	300	60	---	---	---	---	---	---	---	yes	yes	---	---	yes	
178	54	54	12	4	8	---	1	---	9†	386	60	---	---	---	---	---	---	---	---	---	---	---	---	
179	54	54	5	5	---	---	---	---	9	200	60	---	---	---	---	---	---	---	---	---	---	---	---	
180	54	54	12	3	9	---	1	---	9	375	60	---	---	---	yes	---	yes	yes	yes	---	---	yes	---	
181	60	54	12	3	1	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	---	
182	60	54	6	5	---	---	---	---	10	175	60	---	---	---	---	---	---	---	---	---	---	---	---	
183	60	54	5	4	---	---	---	---	10	140	60	---	---	---	---	---	---	---	---	---	---	---	---	
184	60	54	6	4	---	---	---	---	10	125	60	---	---	---	---	---	---	---	---	---	---	---	---	
185	60	60	8	6	---	---	---	---	10	230	45	---	---	---	---	---	---	---	yes	yes	---	---	---	
186	55	55	225	200	1	---	24	yes	10	7,000	* 30	---	yes	---	---	---	---	---	---	no	---	---	yes	
187	60	54	8	5	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---	
188	54	54	5	2	2	---	---	---	9	150	45	---	---	yes	yes	---	---	yes	yes	yes	---	yes	---	
189	60	54	80	50	---	---	---	---	10	1,900	* 30	---	---	---	---	---	---	---	---	---	---	---	---	
190	60	---	30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
191	72	72	25	25	---	---	---	---	10	1,000	* 30	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	---	
192	60	54	12	12	---	---	---	---	10	500	45	---	---	---	---	---	---	---	---	---	---	---	---	
193	72	---	30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
194	60	---	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
195	60	60	24	16	---	---	---	---	10	800	45	yes	---	yes	yes	yes	no	yes	yes	no	no	yes	---	
196	60	48	55	22	2	---	---	---	10	900	60	---	---	---	---	---	---	---	---	yes	---	---	yes	
197	72	---	30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
198	60	60	250	158	22	---	---	---	10	6,000	* 30	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes	
199	60	54	35	25	---	---	---	---	10	1,000	60	---	---	---	---	---	---	---	---	---	yes	no	---	---
200	60	60	76	63	2	---	---	---	10	2,500	45	---	---	---	---	---	---	no	---	---	---	---	yes	

* Permit given by inspector.
† Estimated.

Inspection book No. 5.

TABLE No. 1.—CONTINUED.—

No. given factory for 1905.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
201	Apr. 3	Detroit	Leonard Laurence & Co.	Mouldings	run.	part
202	" 3	"	Peninsular Lead and Color Works	Paints	"	full
203	" 3	"	Acme Safety Emery Wheel Co.	Emery wheels	idle	"
204	" 5	"	Gray Bros.	Carriages and wagons	run.	full
205	" 5	"	Crescent Machine Co.	Lathes and spec'l mach'y	"	"
206	" 5	"	John Hoffman	Beer barrels	"	"
207	" 5	"	Thomas Rhoda	Men's clothing	"	"
208	" 5	"	F. W. Wagner	Barrels	"	"
209	" 6	"	Rumsey & Eby	Carriages	"	part
210	" 6	"	Hampton & Buyers	"	"	full
211	" 6	"	Chas. H. Smith	Cloth buttons	"	"
212	" 8	"	Enterprise Carbonating Co.	Pop, beer, etc.	"	"
213	" 8	"	Standard Laundry	Laundry work	"	part
214	" 8	"	Canada Malt Co.	Malt	"	full
215	" 8	"	J. B. Wilson & Co.	Machinery	"	part
216	" 8	"	Hees, Macfarlane & Co.	Window shades	"	full
217	" 9	"	Detroit Waste Paper Co.	Waste and print'g paper	"	part
218	" 9	"	Michigan Ornamental Glass Co.	Ornamental glass	idle	"
219	" 9	"	The Hunt Chair Co.	Chairs and rockers	"	"
220	" 9	"	Barney Nehls	Electroplating	run.	full
221	" 9	"	P. S. O'Dea	Boot and shoe uppers	"	"
222	" 10	"	C. H. Curtiss	Corsets	"	"
223	" 10	"	Detroit Wooden Ware Works	Boxes, pails and tubs	"	part
224	" 10	"	Detroit Oak Belting Co.	Leather belts	"	full
225	" 10	"	W. A. C. Miller	Lumber, mouldings, etc.	"	part
226	" 10	"	Detroit Car Works	Cars	idle	"
227	" 11	"	Murphy Iron Works	Machinery	run.	full
228	" 11	"	J. O. Dwyer	Clay pipes	"	"
229	" 11	"	Raynor & Taylor	Book bind'g and print'g.	"	"
230	" 11	"	Chas. Wright & Co.	Pharmacy goods	"	"
231	" 11	"	J. T. Wing & Co.	Leather belts	"	"
232	" 12	"	Sian Laundering Co.	Laundry work	"	part
233	" 15	"	Rentz & Lebat	Copper and sheet metal	"	"
234	" 15	"	Parks, Davis & Co.	Chemicals	"	full
235	" 15	"	John Oades & Co.	Boats	"	"
236	" 15	"	Byram & Co.	Furnaces & foundry sup.	"	part
237	" 16	"	Globe Foundry Co.	Castings	"	"
238	" 16	"	St. Clair Paper Manufacturing Co.	Rope and express paper	"	"
239	" 16	"	U. S. Frumentum Co.	Frumentum	"	full
240	" 16	"	American Brass & Metal Works	Artistic brass and metal	"	"
241	" 16	"	Lanhoff Tobacco Works	Tobacco	"	part
242	" 17	"	Lanhoff Roller Mill Works	Roller mill machinery	"	"
243	" 17	"	The Casket & Shell Co.	Caskets	"	full
244	" 17	"	Excelsior Stove Pattern Co.	Stove patterns	"	part
245	" 17	"	Cartwright Bros.	Cut stone and marble	idle	"
246	" 17	"	W. F. Myll	Dressed lumber	run.	part
247	" 18	"	McClure & Kelsey	Hose trucks	"	"
248	" 18	"	E. McKinsie & Sons	Shipsmiths' goods	"	full
249	" 18	"	Fred Kahl Foundry	Castings	"	"
250	" 18	"	Frontier Iron Works	Engines and castings	"	"

THIRD ANNUAL REPORT.

19

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shutters used in throwing balls, and loose pulleys where possible?	Is all machinery, vata, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
201	60	50	100	73	7	1	1	yes	10	\$2,500	*30	yes	yes	yes	yes	yes	no	yes	yes	yes	no	no	yes
202	60	60	60	24	6	1	1	yes	10	1,500	45	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
203	60	60	12	24	2	2	2	yes	10	1,050	45	yes	yes	yes	yes	yes	no	no	yes	yes	no	yes	yes
204	60	60	50	23	1	1	1	yes	10	1,000	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
205	60	60	24	23	1	1	1	yes	10	1,000	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
206	60	60	10	10	2	2	2	yes	10	480	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
207	54	54	6	2	2	2	2	yes	9	120	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
208	60	60	30	26	5	5	5	yes	10	1,800	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
209	60	48	6	5	5	5	5	yes	10	200	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
210	60	60	12	12	12	12	12	yes	10	525	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
211	60	60	5	3	2	2	2	yes	10	170	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
212	60	60	5	4	4	4	4	yes	10	140	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
213	60	54	6	2	2	2	2	yes	10	120	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
214	60	50	9	9	9	9	9	yes	10	675	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
215	60	54	15	15	15	15	15	yes	10	600	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
216	59	59	50	21	7	7	7	yes	10	1,100	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
217	60	54	10	4	3	3	3	yes	10	250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
218	60	54	30	30	30	30	30	yes	10	250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
219	60	54	25	25	25	25	25	yes	10	500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
220	60	60	11	10	10	10	10	yes	10	500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
221	60	60	12	3	1	1	1	yes	10	175	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
222	54	54	6	2	2	2	2	yes	9	150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
223	60	54	250	200	3	3	3	yes	10	5,000	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
224	60	60	100	79	1	1	1	yes	10	2,300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
225	60	54	50	30	30	30	30	yes	10	1,200	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
226	60	54	509	509	509	509	509	yes	10	2,500	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
227	60	60	100	62	1	1	1	yes	10	175	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
228	60	60	6	4	1	1	1	yes	10	175	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
229	54	54	50	25	6	6	6	yes	9	1,500	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
230	57	57	80	12	26	26	26	yes	10	2,300	*30	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
231	60	60	15	15	15	15	15	yes	10	750	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
232	60	54	20	5	13	13	13	yes	10	500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
233	60	54	6	4	4	4	4	yes	10	150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
234	55	55	800	230	420	420	420	yes	9	25,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
235	60	60	50	30	30	30	30	yes	10	1,250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
236	60	54	50	13	1	1	1	yes	10	500	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
237	60	54	70	28	28	28	28	yes	10	1,100	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
238	72	50	20	20	20	20	20	yes	10	800	60	no	no	no	no	no	no	no	no	no	yes	no	no
239	60	60	10	8	8	8	8	yes	10	375	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
240	60	60	150	100	100	100	100	yes	10	4,200	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
241	60	48	20	10	10	10	10	yes	10	250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
242	60	54	6	6	6	6	6	yes	10	300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
243	60	60	30	10	10	10	10	yes	10	500	60	no	no	no	no	no	no	no	no	no	no	no	no
244	60	56	65	13	1	1	1	yes	10	750	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
245	54	--	14	--	--	--	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
246	60	56	10	9	9	9	9	yes	10	300	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
247	60	56	18	10	10	10	10	yes	10	280	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
248	60	60	7	7	7	7	7	yes	10	300	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
249	60	60	20	20	20	20	20	yes	10	1,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
250	60	60	130	115	115	115	115	yes	10	4,500	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

* Permit given by inspector.

Inspection book No. 6.

TABLE No. 1.—CONTINUED.—

No. given factory for 1933.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
251	Apr. 18	Detroit.	Detroit Planing Mill Co.	Dressed lumber	run.	part
252	" 19	"	Crescent Brass and Iron Works	Ornam'tal brass and iron	"	full
253	" 19	"	East End Boiler Works	Boilers	"	"
254	" 19	"	W. H. Granger	Pumps	"	part
255	" 19	"	J. Gruss	Wagons and carriages	"	full
256	" 19	"	John Laner	Artificial limbs	"	part
257	" 20	"	James Fellows	Job printing	"	full
258	" 20	"	J. P. Henslen	Tinware	"	"
259	" 22	"	H. C. Hart Mfg Co.	Railway car finish, etc.	"	part
260	" 22	"	Ideal Mfg Co.	Sanitary supplies, etc.	"	full
261	" 23	"	Mich. Paste and Mfg Co.	Paste, ammonia and ink	"	part
262	" 23	"	Hitchcock, Van Liew & Co.	Mixed mustard	"	full
263	" 23	"	Detroit Carbonic Acid Gas Co.	Acid gas	"	"
264	" 23	"	Phoenix Wire Works No. 3	Wire goods	"	"
265	" 23	"	American Printing Co.	Job printing	"	"
266	" 24	"	Dry Dock Engine Works	Marine engines, etc.	"	"
267	" 24	"	Dry Dock Engine Boiler Shop	Marine boilers	"	"
268	" 24	"	Detroit Dry Dock Co.	Steam boats	"	"
269	" 24	"	R. Robertson & Co.	Cut stone	"	"
270	" 25	"	Detroit Sheet Metal & Brass W'ks.	Brass furniture, etc.	"	"
271	" 25	"	C. H. Little	Lime and stone	"	"
272	" 25	"	Detroit Screw Works	Machine screws	"	"
273	" 26	"	Shulte Bros.	Soap, lard and oil	"	"
274	" 26	"	Batchelder, Read & Co.	Cut stone	"	"
275	" 26	"	Samuel F. Hodge & Co.	Castings and mar. eng's.	"	"
276	" 30	"	D. G. H. & M. R. E. Co. Car Shops	Railroad cars	"	part
277	" 30	"	D. G. H. & M. R. E. Co. Loco. Dept.	Locomotives	"	"
278	May 1	"	Detroit Stove Works	Stoves and ranges	"	full
279	" 2	"	Port Huron Fiber Mfg Co.	Fiber cloth	"	"
280	" 3	"	Detroit Stamping Co.	Cork screws, etc.	"	"
281	" 3	"	Pioneer Glass and Novelty Co.	Mirrors and reed chairs	"	"
282	" 3	"	C. Kaiser & Son	Boots and shoes	"	"
283	" 3	"	A. Wegener's Bottling Works	Beer and soda wrter	"	"
284	" 3	"	D. Karle	Cop., Sheet iron & tinw're	"	"
285	" 3	"	McCormick & Richards	Stoves and sheet iron	"	"
286	" 3	"	A. Dobberstein	Potash	"	"
287	" 7	"	Nelson Baker & Co.	Pharmacy goods	"	part
288	" 7	"	Mich. Stove Co.	Stoves and ranges	"	"
289	" 8	"	F. A. Decker	Baby carriages	"	full
290	" 8	"	Detroit Railway Elevator Co.	Grain	"	part
291	" 8	"	The Aldrich Car Seal Mfg Co.	Car seals	"	full
292	" 8	"	Sievers & Erdman	Carriages	"	"
293	" 8	"	American Laundry	Laundry work	"	"
294	" 9	"	Herman Diets	Cigars	"	"
295	" 9	"	G. E. Gross & Son	"	"	"
296	" 9	"	Feldman Bros.	Cloth caps	"	"
297	" 9	"	Wm. Brown	Trunks and traveling b'gs	"	"
298	" 9	"	Gebhard Paper Co.	Printers' supplies	"	"
299	" 10	"	Christiansen Harness Mfg Co.	Harnesses and turf goods	"	"
300	" 10	"	Detroit Horse Goods Co.	Horse goods	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire-escapes provided where necessary and with suitable openings?	Are shifters used in throwing bales, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary.	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
251	60	30	4	4	68	15	8		10	\$150	60	yes				yes	no		yes	yes	no	yes	yes
252	59	59	78	68	15	15	8		10	3,000	30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
253	60	60	32	4	15	15	8		10	750	60							yes				no	yes
254	60	48	10	4	15	15	8		10	120	60												
255	60	60	6	4	15	15	8		10	160	60												
256	60	54	35	35	1	1	1		10	1,500	60		yes					yes	yes				
257	54	54	5	2	1	1	1		10	120	60												yes
258	60	60	60	30	1	1	1		10	1,000	30												
259	60	54	140	105	15	15	4	yes	10	4,500	30		yes								yes	yes	yes
260	58	58	300	278	7	3	12	no	10	9,000	30		no								yes	yes	yes
261	60	55	6	6	3	1	1		10	225	45										no		
262	54	54	6	3	1	1	1		9	175	45												yes
263	58	58	5	4	1	1	1		10	200	45		no	yes	yes		yes						yes
264	58	58	20	7	1	1	1		10	250	45												
265	54	54	6	5	1	1	1		9	250	60									no			yes
266	60	60	85	63					10	3,000	60		yes						yes				
267	60	60	140	45					10	2,200	60												
268	60	60	277	60					10	2,400	45												
269	54	54	20	20					9	950	60												
270	60	60	325	117	3	2	yes		10	3,500	30		yes	yes	yes		no		yes		yes	yes	yes
271	60	60	25	20					10	750	30												
272	60	60	130	112	1	6	no		10	4,200	30		yes	yes	yes		yes				no	yes	yes
273	60	60	6	6					10	250	60												
274	54	54	21	21					9	1,200	60						no						
275	60	60	130	130					10	6,300	30			yes	yes		yes						
276	60	54	50	44					10	11,650	60												
277	60	54	202	202					10	10,500	60		yes										
278	59	59	700	521	4				10	20,600	30		yes										
279	54	54	50	5	45			no	9	700	60		no				no				yes	no	yes
280	60	60	40	12					10	600	60	no		no	no		no	yes					
281	60	60	12	12			3	yes	10	400	45	yes		yes	yes								
282	60	60	30	15			1	no	10	650	30												
283	60	60	4	4					10	160	60												
284	60	60	12	8					10	400	30												
285	60	60	8	8					10	350	60												
286	60	60	4	4					10	160	60												
287	60	45	119	67	52				10	14,500	60		no	yes	yes			yes	yes	yes			yes
288	60	45	1000	798	2		9	no	10	35,000	30		yes								yes	no	
289	60	60	5	5					10	130	60												
290	60	30	25	8					10	450	60		yes										
291	60	60	4	4					10	135	60												
292	60	60	80	60					10	3,100	30		yes									yes	
293	54	54	18	4	5				9	250	30										no		yes
294	48	48	21	7	14		2	yes	8	750	60												
295	48	48	60	10	10				8	800	60												
296	60	60	5	5					10	180	60								yes	yes			
297	60	60	60	6			1	yes	10	225	30		yes										
298	48	48	7	7			1	no	8	375	60												
299	60	60	10	6					10	230	60		yes										
300	60	60	25	21	4		2	yes	10	700	60			no	no		no	yes	yes				yes

* Permit given by inspector.

† Estimated.

Inspection book No. 7.

TABLE No. 1.—CONTINUED.—

No. given factory for 1895.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
301	May 10	Detroit.....	W. N. Carlisle & Co.....	Harnesses.....	run.	full
302	" 10	".....	Pierson & Hough, No. 1.....	Harnesses and saddles.....	"	"
303	" 10	".....	Detroit Picture Frame Factory.....	Frames and mouldings.....	"	"
304	" 10	".....	Tuttle & Clark.....	Harness and turf goods.....	"	"
305	" 11	".....	Detroit Cap Manufacturing Co.....	Caps.....	"	"
306	" 11	".....	Clark & Beardon.....	Printed matter.....	"	"
307	" 11	".....	H. Hanshaw.....	Signs.....	"	"
308	" 11	".....	Beck & Knight.....	Blank books.....	"	"
309	" 13	".....	R. H. Hall.....	Brick.....	"	"
310	" 13	".....	Detroit Pressed Brick Co.....	Com'n and pressed brick.....	"	"
311	" 13	Springwells.....	A. Lonyo.....	Stock brick.....	"	"
312	" 13	".....	Hall & Wolf.....	Brick.....	"	"
313	" 14	Detroit.....	Goldner Bros.....	Wagons and trucks.....	"	"
314	" 14	".....	D. C. Spaulding & Co.....	Dressed lumber.....	"	part
315	" 14	".....	The Kennedy Basket Man'g Co.....	Baskets.....	idle	"
316	" 14	Woodmere.....	Cardoni Monumental Works.....	Monuments.....	run.	full
317	" 14	".....	G. H. Lemmer Granite Works.....	".....	"	"
318	" 14	".....	Woodmere Granite Works.....	".....	"	"
319	" 15	River Rouge.....	Wm. Ellis.....	Grain.....	"	"
320	" 15	Delray.....	Wabash R. R. Co. Locomotive Shop.....	Repair locomotives.....	"	"
321	" 15	".....	Wabash R. R. Co. Car Shop.....	Repair cars.....	"	"
322	" 15	Detroit.....	Det. Cement Sewer Pipe W'ks No. 2.....	Crocks and sewer pipe.....	"	"
323	" 15	".....	U. S. Heater Co.....	Hot w'ter and st'm heater.....	"	"
324	" 15	".....	Detroit Chemical Works.....	Acid phosphate.....	"	"
325	" 16	Springwells.....	Lonyo Bros.....	Brick.....	"	"
326	" 16	".....	C. Clippert & Sons.....	".....	"	"
327	" 16	Detroit.....	Bock, Schoeneweg & Gast.....	Furniture.....	"	"
328	" 17	Springwells.....	A. H. Schmittziel Brick Y'd, No. 1.....	Brick.....	"	"
329	" 17	".....	A. H. Schmittziel Tile W'ks, No. 2.....	Tile and brick.....	"	"
330	" 17	".....	C. Clippert & Sons, No. 2.....	Brick.....	"	"
331	" 17	".....	Goldner Bros.....	".....	"	"
332	" 17	".....	A. Lonyo, No. 2.....	".....	"	"
333	" 17	".....	Peter Burns.....	".....	idle	"
334	" 20	".....	J. Daniels & Bros.....	".....	run.	full
335	" 20	".....	Francis Hynes.....	".....	"	"
336	" 20	".....	Archer & Collins.....	".....	"	"
337	" 20	".....	J. H. Clixby.....	".....	idle	"
338	" 20	".....	P. C. Wood.....	Wagons.....	run.	full
339	" 21	".....	Haggerty & Proctor.....	Brick.....	idle	"
340	" 21	".....	Grensel Bros., No. 1.....	".....	run.	full
341	" 21	".....	J. C. McDonald.....	".....	"	"
342	" 21	".....	J. C. McDonald.....	Tile.....	"	"
343	" 21	".....	Haggerty Bros.....	Brick.....	"	"
344	" 21	".....	Grensel Bros.....	".....	idle	"
345	" 23	Detroit.....	J. J. Martin.....	Sash, doors and blinds.....	run.	full
346	" 23	".....	A. Sippel.....	Wagons and carriages.....	"	"
347	" 23	".....	Warren-Schraf Asphalt Paving Co.....	Asphalt.....	"	"
348	" 23	Leesville.....	Wm. Christy Brick Yards.....	Brick.....	"	"
349	" 23	".....	Seifferlein & Sieger.....	".....	"	"
350	" 23	".....	A. Trombly.....	".....	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable (do doors swing outward or slide?)	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shutters used in throwing belis and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
301	60	60	10	6	2				10	\$240	60	yes		yes	yes	yes	no	yes	yes	yes	no	yes	yes
302	60	60	30	28	2				10	750	*30		yes		yes	yes	no	yes	yes	yes		yes	yes
303	60	60	7	5	5				10	185	*30							yes	yes	yes			yes
304	60	60	25	24	1				10	850	*30							yes	yes	yes			yes
305	60	60	41	21	20	1			10	1,000	60							no	yes	yes			yes
306	54	54	6	6					9	280	60							yes	yes	yes			
307	60	60	5	5					10	175	60								yes	yes			
308	54	54	7	5	2				9	250	60							yes	yes	yes			yes
309	54	54	67	36	4	1	3	no	9	1,800	*30							yes	yes	yes			yes
310	60	60	50	15			8		10	900	60								yes	yes			
311	60	60	24	24			2		10	1,100	*30								yes	yes			
312	48	48	100	52	8	1	4		10	2,500	*30								yes	yes			yes
313	60	60	7	6					10	225	*30			no	no			yes	yes	yes			
314	60	20	5	5					10	125	60							yes	yes	yes			
315	60		20																yes	yes			
316	54	54	10	5					9	250	60	yes				yes	no		yes	yes	no	yes	
317	54	54	10	7					9	380	60							yes	yes	yes			
318	54	54	12	12					9	785	60							yes	yes	yes			
319	60	60	35	7					10	870	60			yes	yes			yes	yes	yes	yes		
320	54	54	31	25					9	1,625	60								yes	yes	no		
321	54	54	25	25					9	1,300	50								yes	yes			
322	60	60	5	4					10	150	60								yes	yes			
323	60	60	70	31	4				10	600	60			yes	yes			yes	yes	yes			yes
324	60	60	12	11					10	400	*30							yes	yes	yes			
325	48	48	33	25	4	1	4	no	8	1,300	*30								yes	yes			yes
326	48	48	25	21	4		4	yes	8	1,100	*30								yes	yes			
327	60	60	12	12					10	450	*30		yes	no	no			yes	yes	yes			
328	48	48	24	20	4		2	yes	8	1,000	*30								yes	yes			
329	48	48	43	44	4				8	2,000	*30								yes	yes	no		yes
330	48	48	26	18	4		3		8	925	*30								yes	yes			
331	48	48	24	21	3				8	1,000	*30								yes	yes			
332	48	48	27	21	6		4	no	8	1,050	*30								yes	yes			
333	48		20																yes	yes			
334	48	48	25	25			3	yes	8	1,200	*30	yes				yes	no		yes	yes	no	yes	
335	48	48	30	30			4	no	8	1,300	*30								yes	yes	no	yes	
336	48	48	25	25		3	2	yes	8	1,225	*30								yes	yes		yes	
337	48		24																yes	yes			
338	60	60	5	3					10	125	60	yes		yes	yes	yes	no			yes	no	yes	yes
339	48		24						8	1,000	*30	yes				yes	no			yes	no	yes	yes
340	48	48	27	24	3	5	3	no	8	1,000	*30	yes				yes	no			yes	no	yes	yes
341	48	48	35	25		2	3		8	1,100	*30								yes	yes			
342	60	60	15	15					10	450	*30									yes	yes		
343	48	48	14	14					8	500	*30									yes	yes		
344	48		24																	yes	yes		
345	54	54	20	20			1	no	9	750	45	yes		yes	yes	yes	no	yes	yes	yes	no	yes	
346	60	60	5	4					10	150	*30								yes	yes			
347	60	60	20	10					10	375	*30								yes	yes			
348	54	54	24	24					9	1,000	*30									yes	yes		
349	54	54	18	15					9	575	*30									yes	yes		
350	54	54	11	11					9	425	*30									yes	yes		

* Permit given by inspector.

Inspection book No. 8.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
351	May 23	Greiner	F. Juif	Flour and feed	run.	full
352	" 23	"	Wm. Schoenholt	Lumber and timber	"	"
353	" 24	Detroit	Kaighin & Price	Varnish	"	"
354	" 24	"	The McAlpine Shoe Co.	Boots and shoes	"	"
355	" 24	"	Detroit Sanitary Supply Co.	Sanitary goods	"	"
356	" 24	"	T. W. Noble	Sails and awnings	"	"
357	" 24	"	Hurd & Cooper	Machinery	"	"
358	" 24	"	Blom & Co.	Sails, awnings and tents	"	"
359	" 27	River Rouge	R. H. Hall Brick Co.	Brick	"	"
360	" 27	Detroit	U. S. Baking Co.	Crackers and cakes	"	"
361	" 27	"	Phoenix Wire Works, No. 1	Iron and wire goods	"	"
362	" 27	"	Kuttanauer, Rosenfield & Co.	Workmen's clothing	"	"
363	" 27	"	J. C. Goss & Co.	Sails, tents and awnings	"	"
364	" 27	"	Schloss Bros. & Co.	Men's clothing	"	"
365	" 27	"	J. F. Stein	Optical goods	"	"
366	" 28	"	H. P. Baldwin & Co., No. 2	Boots and shoes	"	"
367	" 28	"	Zabriskie & Bennett	Nickle plat'g and stamps	"	"
368	" 28	"	Torpe & Co.	Stamps and stencils	"	"
369	" 28	"	J. H. Schwegler	Jewelry	"	"
370	" 28	"	Gourlay Bros.	Shirts, etc.	"	"
371	" 28	"	Gourlay Bros.	Laundry work	"	"
372	" 28	"	Moll & Stock	Men's clothing	"	"
373	" 29	"	Dickerson & Co.	Hats	"	"
374	" 29	"	Morgan, Puhl & Morris	Regalia	"	"
375	" 29	"	George Moore & Co.	Cigars	"	"
376	" 29	"	Amabary's Elec. Dy'g and Cl'g W'ks	Dyed goods	"	"
377	" 29	"	Mieh. Cloth'g Cl'ng and Repair Co.	Clean and repair clothes	"	"
378	" 29	"	Metropolitan Steam Dye Works	Clean and dye clothing	"	"
379	" 29	"	Wagner Baking Co., No. 2	Cakes	"	"
380	" 29	"	Cambridge Laundry	Laundry work	"	"
381	" 31	"	Metropolitan Home Bakery	Bread and cakes	"	"
382	" 31	"	Monarch Laundry	Laundry work	"	"
383	" 31	"	Mieh. Baking Co.	Bread and cakes	"	"
384	" 31	"	Vienna Model Bakery	"	"	"
385	" 31	"	Sylvan Toilet Co.	Soaps and perfumes	"	"
386	June 4	"	Mieh. Optical Co.	Optical goods and cases	"	"
387	" 4	"	A. W. Roemer & Co.	Cigars	"	"
388	" 4	"	Haete & Harris	Cream crackers	"	"
389	" 4	"	Detroit Cigar Box M'g Co.	Cigar boxes	"	"
390	" 4	"	Detroit Publishing Co.	Printed matter	"	"
391	" 5	"	Chas. E. Wain & Co.	Machinery	"	"
392	" 5	"	J. W. Morrison & Co.	Job printing	"	"
393	" 5	"	Sanger's Laundry	Laundry work	"	"
394	" 5	"	Det. Counter Stool and Iron W'ks.	Stools and iron work	"	"
395	" 5	"	Rothschild & Bro.	Strip tobacco	"	"
396	" 5	"	Caldwell, Hicks M'g Co.	Baking power, etc.	"	"
397	" 6	"	Detroit Pop-corn Novelty Co.	Pop corn	"	"
398	" 6	"	Jas. Walker & Son	Cop., br's and iron goods	"	"
399	" 6	"	Detroit Plating Co.	Plating	"	"
400	" 6	"	Thorp, Hawley & Co.	Candy	"	"

THIRD ANNUAL REPORT.

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District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week, at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are chuffers used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
351	60	60	4	3	---	---	---	---	10	\$120	60	yes	---	no	no	yes	no	yes	yes	yes	no	yes	---
352	60	60	8	3	---	---	---	---	10	250	60	no	---	---	---	---	---	---	---	---	---	---	---
353	60	60	4	4	---	---	---	---	10	200	60	yes	---	---	---	---	---	---	---	---	---	---	---
354	60	60	30	15	5	---	---	---	10	8,000	*30	---	no	yes	yes	---	---	yes	---	---	yes	yes	---
355	60	60	25	15	---	---	---	---	10	950	*30	yes	---	---	---	---	---	---	---	---	---	---	---
356	60	60	16	6	4	---	---	---	10	400	60	---	---	---	---	---	---	---	---	no	---	yes	---
357	60	60	5	5	---	---	---	---	10	180	60	---	---	---	---	---	---	---	yes	yes	---	---	---
358	60	60	20	5	3	---	---	---	10	370	60	---	---	---	---	---	---	---	---	---	---	yes	---
359	60	60	150	117	8	7	4	no	10	†, 700	*30	---	---	---	---	---	---	yes	yes	---	---	---	---
360	55	55	33	16	6	---	---	---	10	800	*30	yes	---	---	---	---	---	---	---	---	---	---	---
361	60	60	40	30	---	---	2	yes	10	1,500	*30	---	---	no	no	---	---	---	---	---	---	---	---
362	53	53	150	25	125	---	3	no	9	4,375	*30	---	---	yes	yes	---	---	---	---	---	---	yes	---
363	30	60	20	20	---	---	---	---	10	1,300	*30	---	---	---	---	---	---	---	---	---	---	---	---
364	54	54	14	11	3	---	---	---	9	525	*30	---	---	---	---	---	---	---	---	---	---	---	---
365	60	60	6	6	4	---	---	---	10	230	60	---	---	---	---	---	---	---	---	---	---	---	---
366	54	54	75	40	20	---	1	no	9	3,000	*30	yes	yes	yes	yes	---	yes	---	---	yes	---	---	---
367	54	54	6	5	1	---	---	---	9	225	*30	---	---	no	no	---	---	---	---	no	---	---	---
368	54	54	6	6	---	---	---	---	9	250	60	---	yes	yes	yes	---	---	---	---	---	---	---	---
369	54	54	5	5	---	---	---	---	9	200	60	---	---	---	---	---	no	---	---	---	---	---	---
370	54	54	20	2	14	---	---	---	9	500	*30	yes	---	---	---	---	yes	---	---	---	---	yes	---
371	54	54	10	---	10	---	---	---	9	200	*30	---	---	---	---	---	---	---	---	---	---	---	---
372	54	54	10	4	1	---	---	---	9	225	60	---	---	---	---	---	---	---	---	---	---	---	---
373	60	60	6	6	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---
374	54	54	25	10	15	---	---	---	9	800	60	---	---	---	---	---	---	yes	yes	---	---	yes	---
375	48	48	75	20	---	---	---	---	9	900	60	---	---	---	---	---	---	---	---	---	---	---	---
376	54	54	14	11	3	---	---	---	9	500	60	---	---	---	---	---	---	yes	yes	---	---	yes	---
377	54	54	10	6	2	---	---	---	9	800	60	---	---	---	---	---	---	---	---	---	---	---	---
378	54	54	12	2	10	---	---	---	9	375	60	---	---	---	---	---	---	---	---	---	---	---	---
379	54	54	5	4	1	---	1	no	9	200	60	---	---	---	---	---	---	---	---	---	---	---	---
380	54	54	24	6	18	---	---	---	9	750	*30	yes	---	---	---	---	---	---	---	---	no	no	---
381	54	54	6	4	2	---	---	---	9	225	60	---	---	---	---	---	---	---	---	---	---	yes	yes
382	54	54	18	4	11	---	---	---	9	50	60	---	---	---	---	---	---	---	---	---	---	---	---
383	54	54	6	5	1	---	---	---	9	200	60	---	---	---	---	---	---	---	---	---	---	---	---
384	54	54	6	4	2	---	---	---	9	220	60	---	---	---	---	---	---	---	---	---	---	---	---
385	54	54	12	3	5	---	---	---	9	800	60	---	---	---	---	---	---	---	---	---	---	---	---
386	58	58	71	36	35	2	8	no	9	1,800	*30	---	---	---	---	---	---	yes	yes	yes	---	---	---
387	48	48	6	4	2	---	---	---	8	225	60	---	---	---	---	---	---	---	---	no	---	---	---
388	54	54	28	28	---	---	---	---	9	1,100	*30	---	---	---	---	---	---	yes	yes	---	---	---	---
389	54	54	10	5	1	---	---	---	9	220	60	---	no	no	---	---	yes	---	---	---	---	yes	---
390	54	54	6	4	---	---	---	---	9	150	60	---	---	---	---	---	---	---	---	---	---	---	---
391	60	60	6	4	---	---	---	---	10	120	*30	---	yes	yes	---	---	yes	---	---	---	---	---	---
392	54	54	12	8	---	---	---	---	9	300	60	---	---	---	---	---	---	---	---	---	---	---	---
393	54	54	15	4	11	---	---	---	9	400	60	---	no	no	---	---	---	---	---	---	no	no	---
394	60	60	12	7	---	---	---	---	10	250	*30	yes	yes	yes	---	---	---	---	---	---	yes	yes	---
395	54	54	80	5	65	---	18	yes	9	950	*30	---	---	---	---	---	---	---	---	---	---	yes	---
396	54	54	12	6	2	---	---	---	9	275	60	---	---	---	---	---	---	yes	yes	---	---	no	no
397	54	54	10	6	4	---	---	---	9	300	60	---	---	---	---	---	---	---	---	---	---	---	---
398	60	60	22	22	---	---	---	---	10	800	*30	no	---	---	---	---	---	---	---	---	---	yes	---
399	55	55	25	8	---	---	---	---	8	325	*30	yes	---	---	---	---	---	---	---	---	---	yes	---
400	60	60	110	55	45	---	---	---	10	3,200	*30	---	---	---	---	---	---	---	---	---	---	---	---

* Permit given by inspector.

† Estimated.

Inspection book No. 9.

TABLE No. 1.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
401	June 6	Detroit.	Heavenrich Bros.	Clothing	run.	full
402	" 6	"	Oakford Printing Co.	Printed matter	"	"
403	" 7	"	Maddock Glove Co.	Gloves	"	"
404	" 7	"	Marvin Printing Co.	Printed matter	"	"
405	" 7	"	Western Carpet Cleaning Works	Cleaning carpets	"	"
406	" 7	"	Appelt Milling Co.	Flour and feed	idle	"
407	" 7	"	Detroit Ladder Works	Ladders	run.	full
408	" 7	"	Kennedy & Greig	Machinery	"	"
409	" 7	"	Michigan Glass and Painting Co.	Mottos and frames	"	"
410	" 10	"	Pingree & Smith	Shoes	"	"
411	" 10	"	Linn & Co.	Ground spices	"	"
412	" 10	"	Elliott & Co.	"	"	"
413	" 10	"	American Patent Brush Co.	Brushes and wooden ware	"	"
414	" 11	"	Detroit Umbrella Co.	Umbrellas	"	"
415	" 11	"	Stanton, Morey Co.	Men's clothing	"	"
416	" 11	"	Armstrong & Graham	Harness, collars & s'd'l's	"	"
417	" 12	"	Wilton, Smith & Co.	Printed matter	"	"
418	" 12	"	Victor Cash Register Co.	Cash registers	"	"
419	" 12	"	J. A. Topping	Job printing	"	"
420	" 12	"	A. C. McGraw & Co.	Shoes	"	part
421	" 12	"	Detroit Steam Cloth Spong'g W'ks	Sponging cloth	"	full
422	" 12	"	American Eagle Tobacco Co.	Tobacco	"	"
423	" 12	"	Howie Roofing Co.	Roofing and sheet metal	"	"
424	" 12	"	A. Harvey's Sons M'fg Co., L't'd.	Steam and water goods	"	"
425	" 12	"	W. A. Wain	Machinery	"	"
426	" 12	"	John L. Buechner	Nickel plating	"	"
427	" 12	"	Mitchell Bros.	Feed	"	"
428	" 12	"	The Horton-Cato Manufact'g Co.	Catsup and sauces	"	"
429	June 14	"	B. J. Guiney & Co.	Hot air furnaces	"	"
430	" 14	"	Grace Laundry Co.	Laundry work	"	"
431	" 14	"	J. E. Marentette	Buildings	"	"
432	" 17	"	James N. Smith & Co.	Carriage trimmings	"	"
433	" 17	"	Mannasea & Wieber	Printed matter	"	"
434	" 17	"	F. Ingram & Co.	Drugs and perfumes	"	part
435	" 17	"	John Davis & Co.	Baking powder & spices	"	full
436	" 17	"	Geo. J. Hiller	Book binding	"	"
437	" 17	"	Once A Week (Newspaper)	Printed matter	"	"
438	" 18	"	Kohlbrand Engraving Co.	Engraving	"	"
439	" 18	"	E. N. Lightner & Co.	Perfumes	"	"
440	" 18	"	Detroit Journal	Printed matter	"	"
441	" 18	"	Wm. Suckert & Sons	Blank book binding	"	"
442	" 18	"	The Calvert Lithograph Co.	Lithographing goods	"	"
443	" 19	"	H. E. Wuelfing	Machinery	"	"
444	" 19	"	Newton Annie	Furs	"	"
445	" 19	"	Barclay Smith	Coffee and spices	"	"
446	" 19	"	Fisher Electrical Manufact'g Co.	Dynamos & elec. sup'lies	"	"
447	" 19	"	Western Paper Box Co.	Paper boxes	"	"
448	" 20	"	Williamson Manufacturing Co.	Perfumes	"	"
449	" 20	"	Friesema Bros. Printing Co.	Job printing	"	"
450	" 20	"	Det. Confect'y and Fruit Tablet Co.	Candies	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1905.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or alid?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
401	60	60	50	15	---	---	---	---	10	\$625	60	yes	yes	yes	yes	yes	no	no	yes	yes	no	yes	no
402	54	54	12	7	---	---	---	---	9	325	60	yes	yes	yes	yes	yes	no	no	yes	yes	no	yes	no
403	54	54	20	4	10	---	---	yes	9	800	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
404	54	54	4	1	---	---	---	---	10	120	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
405	60	60	5	5	---	---	---	---	10	175	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
406	60	60	5	5	---	---	---	---	10	---	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
407	60	60	12	5	---	---	---	---	10	150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
408	60	60	12	5	---	---	---	---	10	440	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
409	54	54	20	5	---	---	---	---	9	225	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
410	54	54	710	220	240	---	22	yes	9	20,000	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
411	60	60	12	5	2	---	---	---	10	350	60	no	no	no	no	no	no	no	no	no	no	no	no
412	60	60	20	19	1	---	---	---	10	1,000	60	no	no	no	no	no	no	no	no	no	no	no	no
413	60	60	25	22	23	---	---	---	10	1,000	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
414	60	60	90	20	80	---	---	no	10	1,600	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
415	57	57	375	45	380	---	---	yes	10	8,500	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
416	60	60	120	108	12	---	2	---	10	4,800	60	no	no	no	no	no	no	no	no	no	no	no	no
417	54	54	80	24	6	---	1	no	10	1,060	60	no	no	no	no	no	no	no	no	no	no	no	no
418	60	60	20	6	1	---	1	no	10	275	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
419	54	54	7	6	---	---	---	---	9	800	60	no	no	no	no	no	no	no	no	no	no	no	no
420	60	48	245	75	75	---	6	yes	8	4,400	*30	no	no	no	no	no	no	no	no	no	yes	yes	yes
421	60	60	6	5	---	---	---	---	10	180	*30	no	no	no	no	no	no	no	no	no	no	no	no
422	55	55	150	45	70	---	5	no	9	2,600	*30	no	no	no	no	no	no	no	no	no	no	yes	yes
423	60	60	12	8	---	---	---	---	10	400	60	no	no	no	no	no	no	no	no	no	no	no	no
424	60	60	50	46	---	---	---	---	10	1,250	*30	no	no	no	no	no	no	no	no	no	no	no	no
425	60	60	8	5	---	---	---	---	10	325	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
426	54	54	4	4	---	---	---	---	9	150	60	no	no	no	no	no	no	no	no	no	no	no	no
427	60	60	8	8	---	---	---	---	10	200	60	no	no	no	no	no	no	no	no	no	no	no	no
428	54	54	4	7	---	---	---	---	9	450	60	no	no	no	no	no	no	no	no	no	no	no	no
429	60	60	12	7	1	---	---	---	10	800	60	no	no	no	no	no	no	no	no	no	no	no	no
430	54	54	32	8	24	---	---	---	9	750	60	no	no	no	no	no	no	no	no	no	no	no	no
431	54	54	40	20	---	---	---	---	9	600	60	no	no	no	no	no	no	no	no	no	no	no	no
432	60	60	40	39	1	---	---	---	10	1,500	*30	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
433	57	57	9	8	---	---	1	---	9	350	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
434	60	57	40	17	22	---	1	no	10	1,350	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
435	60	60	20	8	2	---	---	---	10	200	*30	no	no	no	no	no	no	no	no	no	no	no	no
436	54	54	22	8	14	---	---	---	9	750	60	no	no	no	no	no	no	no	no	no	no	no	no
437	54	54	8	6	2	---	---	---	9	250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
438	54	54	6	6	---	---	---	---	9	200	60	no	no	no	no	no	no	no	no	no	no	no	no
439	54	54	13	7	6	---	1	no	9	875	60	no	no	no	no	no	no	no	no	no	no	no	no
440	45	45	125	121	4	---	---	---	8	7,000	60	yes	no	no	no	no	no	no	no	no	no	no	no
441	54	54	25	12	7	---	1	---	9	600	60	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
442	56	56	200	200	60	---	---	---	9	12,108	60	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
443	60	60	5	5	---	---	---	---	10	175	60	no	no	no	no	no	no	no	no	no	no	no	no
444	54	54	200	58	79	---	8	no	9	3,500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
445	60	60	6	4	1	---	---	---	10	160	*30	no	no	no	no	no	no	no	no	no	no	no	no
446	54	54	30	30	---	---	---	---	10	1,200	*30	no	no	no	no	no	no	no	no	no	no	no	no
447	60	60	20	4	16	---	---	---	9	500	45	no	no	no	no	no	no	no	no	no	no	no	no
448	54	54	20	4	8	---	---	---	9	500	60	no	no	no	no	no	no	no	no	no	no	no	no
449	64	60	10	10	---	---	---	---	10	875	*30	no	no	no	no	no	no	no	no	no	no	no	no
450	64	60	150	28	32	---	1	yes	10	1,300	60	no	no	no	no	no	no	no	no	no	no	no	no

* Permit given by inspector.

Inspection book No. 10.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
451	June 20	Detroit.	Hugh Johnson & Son	Carriages	run.	full
452	" 20	"	A. Fisher	Carriages and wagons	"	"
453	" 20	"	W. J. Burton	Galvanized iron, etc.	"	"
454	" 21	"	John D. Monat & Co.	Plumbing and st'm fitt'g	"	"
455	" 21	"	Schultz & Weiber	Brass goods	"	"
456	" 21	"	Robert Baxter	"	"	"
457	" 21	"	J. B. Bishop	Brass g'ds and machinery	"	"
458	" 21	"	Det. L'd Pipe and Sheet L'd W'ks.	Lead pipe and sheet lead	"	"
459	" 21	"	Detroit Marble Works	Closet and sink goods	"	"
460	" 24	"	Buhl Stamping Co.	Milk cans and lanterns	"	"
461	" 24	"	City Bottling Works	Soda water and ginger ale	"	"
462	" 24	"	Detroit Casket Co.	Caskets	"	"
463	" 24	"	Central Boiler Works	Boilers	"	"
464	" 24	"	Cooperative Foundry Co.	Castings	"	"
465	" 24	"	Champion St'm Carpet Beat'g W'ks	Cleaning carpets	"	"
466	" 24	"	Clough & Warren Organ Co.	Pianos and organs	"	"
467	" 24	"	Jacob Beck & Sons	Feed	"	"
468	" 24	"	Jacob Beck & Sons	Breakfast food	"	"
469	" 25	"	John F. Wilmot & Co.	Soap	idle	"
470	" 25	"	Mich. Upholstering Co.	Furniture	run.	full
471	" 25	"	Central Bottling Works	Pop. etc.	"	"
472	" 25	"	Detroit Stay Co.	Dress stays	"	"
473	" 25	"	Higela Filter Co.	Water filters	"	"
474	" 25	"	Gardner Elevator Co.	Elevators and elec. goods	"	"
475	" 25	"	Barr & Dates	Wire and iron goods	"	"
476	" 26	"	Telescope Umbrella Co.	Umbrellas	"	"
477	" 26	"	Water Lily Kollar and Kuff Co.	Collars and cuffs	"	"
478	" 26	"	Smith, Day & Co.	Furniture	"	"
479	" 26	"	American Injector Co.	Injectors and grease cups	"	part
480	" 26	"	Fee & Brown Co.	Table relishes	"	full
481	" 27	"	U. Armstrong & Co.	Buildings	"	"
482	" 27	"	The Steel Bath Mfg Co.	Bath tubs	"	part
483	" 27	"	Royal Mfg Co.	Clean'g and sorting silver	"	full
484	" 27	"	Edward Gordon	Doors and w'dow screens	"	"
485	" 27	"	A. S. Fettes	Printed matter	"	"
486	" 28	"	J. F. Eby & Co.	"	"	"
487	" 28	"	Crawford Laundry	Laundry work	"	"
488	" 28	"	Detroit Dental Mfg Co.	Dental goods	"	"
489	" 28	"	Oester Printing Co.	Printed matter	"	"
490	" 28	"	Webster & Meath	Plumbing	"	part
491	" 28	"	Charles Roehm	Book binding	"	full
492	" 28	"	C. E. Menller	Machinery	"	"
493	July 1	"	Niagara Bottling Works	Bottled beer	"	"
494	" 1	"	Speaker Printing Co.	Printed matter	"	"
495	" 1	"	Provident Laundry	Laundry work	"	"
496	" 1	"	Cliff & Higgins	Book binding	"	"
497	" 1	"	Kinnie Shirt Co.	Shirts	"	"
498	" 1	"	The Detroit Evening News	Printed matter	"	"
499	" 1	"	Tribune Printing Co.	"	"	"
500	" 1	"	Detroit Free Press Printing Co.	"	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1896.	Hour per week, running full time?	Hour per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or aside?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are slides used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
451	60	60	18	18					10	\$300	60	yes	no	yes	yes	yes	no	yes			no	yes	
452	60	60	20	17					10	750	*30	yes	no	yes	yes	yes	no	yes			no	yes	
453	54	54	20	20	1		1	yes	9	800	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
454	54	54	25	21					9	800	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
455	54	54	5	5					9	185	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
456	60	60	5	5					10	160	*30	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
457	60	60	5	5					10	180	*30	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
458	58	58	18	18					10	650	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
459	54	54	20	14					9	625	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
460	60	60	100	80		1	12	no	10	2,400	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
461	60	60	28	16					10	700	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
462	58	58	55	48	7				10	1,700	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
463	54	54	80	15					9	800	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
464	54	54	20	15					9	500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
465	60	60	5	5					10	140	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
466	60	60	200	146	4		1	no	10	5,500	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
467	60	60	18	18					10	800	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
468	60	60	15	6	2				10	300	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
469	60	60	10	10					10	750	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
470	60	60	25	24	1		2	yes	10	750	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
471	60	60	10	10					10	380	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
472	54	54	90	5	50				9	1,400	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
473	60	60	4	4					10	180	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
474	60	60	35	30					10	1,500	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
475	60	60	30	29	1				10	1,850	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
476	60	60	9	5	1				10	225	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
477	54	54	80	8	10				9	800	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
478	60	60	40	26			4	yes	10	700	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
479	60	60	30	25	1		2	yes	10	900	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
480	60	60	20	5	5			no	10	300	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
481	54	54	47	20					9	950	45	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
482	60	60	30	20	1				10	800	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
483	54	54	50	2	83		2	no	9	700	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
484	60	60	10	5					10	180	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
485	60	60	4	4					10	150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
486	58	58	95	84	1				9	1,350	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
487	54	54	12	2	5				9	140	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
488	60	60	6	6					10	300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
489	54	54	6	3					9	150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
490	54	54	40	35					9	1,500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
491	54	54	7	3	2				9	150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
492	60	60	6	4					10	180	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
493	60	60	5	4					10	140	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
494	56	56	13	11					9	220	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
495	54	54	19	1	18				9	400	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
496	54	54	15	9	6		1	no	9	500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
497	54	54	10	1	5				9	125	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
498	48	48	125	120	5				8	8,500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
499	48	48	110	110					8	7,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
500	56	56	88	88	4				10	3,300	*30	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

* Permit given by inspector.

† Estimated.

Inspection book No. 11.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
501	July 2	Wyandotte	Wyandotte Boat Co.	Yachts and row boats	run.	full
502	" 2	"	Wyandotte Water Works	City water and light	"	"
503	" 2	"	Wyandotte Herald	Newspaper	"	"
504	" 2	"	Wyandotte Brewing Co.	Beer	"	"
505	" 2	"	Wyandotte City Mills	Flour and feed	"	"
506	" 2	"	Wyandotte Planing Mill Co.	Sash, doors and blinds	"	part
507	" 2	"	J. H. Bishop & Co.	Fur rugs, robes, etc.	"	full
508	" 2	"	W. H. Burrell & Co.	Hoops and staves	"	"
509	" 2	"	Eureka Iron and Steel Co.	Pig iron and steel	idle	"
510	" 2	"	Eureka Brewing Co.	Beer	run.	full
511	" 2	"	Detroit Hoop and Stave Co.	Hoops, staves & heading	"	"
512	" 2	"	Detroit Dry Dock Co.	Iron steam ships	"	"
513	" 2	"	Shelly & Robertson	Hoops and staves	"	"
514	" 2	"	Michigan Alkali Co.	Soda ash and sal-soda	"	"
515	" 2	"	Beals & Selkirk Trunk Co.	Trunks and valises	"	"
516	" 5	"	Lacey & Hurst	Dressed lumber	"	part
517	" 5	"	J. Girardin	Wagons and carriages	"	full
518	" 5	"	J. S. Johnson & Son	"	"	"
519	" 5	"	White Swan Laundry	Laundry work	"	"
520	" 5	Eoorse	Sallotte & Rapp	Lumber and lath	"	"
521	" 5	"	Wyandotte & Detroit River R'y Co.	Electric power	"	"
522	" 5	Trenton	Church & Co.	Salerat's & bi-carb. of soda	"	"
523	" 5	"	Trenton Mills	Flour and feed	"	part
524	" 5	"	Aetna Cooperage Co.	Staves and heading	"	full
525	" 5	"	Trenton Creamery Co.	Butter and cream	"	"
526	" 8	"	N. Manns	Potash	"	"
527	" 8	"	Nibley's Stone Quarry	Stone and lime	"	"
528	" 9	Rockwood	John Strong & Sons	Brick and tile	"	"
529	" 9	"	John Strong & Sons	Staves and heading	idle	"
530	" 9	"	John Strong & Sons	Flour and feed	run.	full
531	" 9	"	S. Rockwood Butter & Cream Fact.	Butter and cream	"	"
532	" 9	"	F. Banmeister & Sons	Baskets	"	"
533	" 9	"	Chas. Metzger	"	"	"
534	" 9	"	John Schmitt	"	idle	"
535	" 10	Flat Rock	Wayne County Bending Works	Lumber and wagon mat'l	"	"
536	" 10	"	Huron Valley Creamery	Butter and cream	run.	full
537	" 10	"	Flat Rock Mills	Flour and feed	"	"
538	" 10	"	G. W. Metler & Son	Lumber and timber	"	"
539	" 10	"	Huron Valley Roller Mills	Flour and feed	"	"
540	" 10	"	Fred Burden	Machinery	"	"
541	" 10	"	Flat Rock Brick and Tile Co.	Brick and tile	"	"
542	" 10	Wals	J. Wals	Lumber and timber	idle	"
543	" 10	New Boston	New Boston Creamery	Butter and cheese	"	"
544	" 10	"	New Boston Roller Mills	Flour and feed	run.	full
545	" 11	Belleville	J. W. Clark	Cider and jelly	idle	"
546	" 11	"	Jas. Stewart	Lumber and timber	run.	full
547	" 11	"	Belleville Mills	Flour and feed	"	"
548	" 11	"	J. G. Coomer	Lumber and timber	idle	"
549	" 11	"	E. Read	Sorted beans	"	"
550	" 11	French Land'g	Detroit Sanitary Works	Grease and fertiliser	run.	full

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1905.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 16 and females under 21 years of age?	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?	
501	60	60	125	50	---	---	---	---	10	\$2,500	60	yes	---	---	---	yes	no	---	yes	yes	yes	no	yes	---
502	72	72	5	5	---	---	---	---	12	275	60	---	---	---	---	---	---	---	---	---	---	---	---	---
503	60	60	6	3	---	---	---	---	10	125	60	---	---	---	---	---	---	---	---	---	---	---	no	---
504	60	60	3	3	---	---	---	---	10	280	60	---	---	---	---	---	---	---	---	---	---	---	---	---
505	60	60	4	4	---	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	---	---
506	60	60	6	4	---	---	---	---	10	125	60	---	---	---	---	---	---	---	---	---	---	---	---	---
507	60	60	225	108	97	---	---	---	10	4,500	60	---	no	---	---	---	---	---	---	---	---	yes	yes	---
508	60	60	180	130	---	---	4	yes	10	4,500	60	---	---	---	---	---	---	---	---	---	---	no	---	---
509	60	60	300	---	---	---	---	---	10	4,500	60	---	---	---	---	---	---	---	---	---	---	---	---	---
510	60	60	6	5	---	---	---	---	10	250	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---	---
511	60	60	125	125	---	---	9	yes	10	1,500	50	---	---	---	---	---	---	---	---	no	---	---	---	---
512	60	60	400	30	---	---	---	---	10	1,400	60	---	---	---	---	---	---	---	---	---	---	---	---	---
513	60	60	53	53	---	---	12	no	10	1,400	60	---	---	---	---	---	---	---	---	yes	---	---	yes	yes
514	84	84	200	175	---	---	---	---	10	6,000	60	---	yes	---	---	---	---	---	---	---	---	no	yes	yes
515	60	60	105	81	24	---	6	yes	10	2,400	50	---	no	---	---	---	---	---	---	no	---	yes	yes	yes
516	60	60	10	8	---	1	1	no	10	250	60	---	---	---	---	---	---	---	yes	---	---	---	---	---
517	60	60	5	4	---	---	---	---	10	160	60	---	---	---	no	no	---	---	---	---	---	no	---	---
518	60	60	5	4	---	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	---	---
519	60	60	6	1	---	2	---	---	10	120	60	---	---	---	---	---	---	---	yes	yes	yes	---	---	no
520	60	60	75	60	---	---	---	---	10	1,800	45	---	---	yes	yes	---	---	yes	---	yes	yes	yes	---	---
521	60	60	18	18	---	---	---	---	10	1,225	60	---	---	---	---	---	---	---	---	---	---	no	---	---
522	84	84	75	60	---	---	---	---	10	3,000	60	---	yes	yes	yes	---	---	yes	---	---	---	---	---	---
523	60	48	4	4	---	---	---	---	10	100	60	---	---	yes	yes	---	---	---	---	---	---	---	---	---
524	60	60	70	70	---	5	12	no	10	2,800	60	---	---	---	---	---	---	---	---	---	yes	yes	yes	---
525	60	60	8	3	---	---	---	---	10	100	60	---	yes	---	---	---	---	---	---	---	---	yes	no	---
526	60	60	4	4	---	---	---	---	10	120	60	---	---	---	---	---	---	---	---	---	---	---	---	---
527	60	60	50	40	---	---	---	---	10	1,250	60	---	---	---	---	---	---	---	yes	yes	---	---	---	---
528	60	60	12	12	---	---	---	---	10	480	60	---	---	---	---	---	---	---	---	---	---	---	---	---
529	60	60	24	4	---	---	---	---	10	200	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---	---
530	60	60	4	3	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---	---
531	60	60	4	3	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---	---
532	60	60	16	8	---	---	---	---	10	300	60	---	---	no	no	---	---	---	---	---	---	---	---	---
533	60	60	8	3	---	---	---	---	10	150	60	---	---	yes	yes	---	---	---	---	---	---	---	---	---
534	60	60	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
535	60	60	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
536	60	60	4	3	---	---	---	---	10	120	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	---	---
537	60	60	4	3	---	---	---	---	10	140	60	---	---	no	no	---	---	---	no	yes	---	---	---	---
538	60	60	14	3	---	---	---	---	10	300	60	---	---	yes	yes	---	---	---	yes	---	---	---	---	---
539	60	60	4	3	---	---	---	---	10	120	60	---	---	---	---	---	---	---	no	yes	---	---	---	---
540	60	60	4	4	---	---	---	---	10	160	60	---	---	---	---	---	---	---	yes	---	---	---	---	---
541	60	60	11	11	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	---	---
542	60	60	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
543	60	60	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
544	60	60	3	3	---	---	---	---	10	130	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---	---
545	60	60	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
546	60	60	8	6	---	---	---	---	10	200	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---	---
547	60	60	2	2	---	---	---	---	10	120	60	---	---	---	---	---	---	---	---	---	---	---	---	---
548	60	60	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
549	60	60	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
550	65	65	80	50	---	---	---	---	10	2,200	60	yes	no	no	no	yes	no	yes	yes	yes	no	yes	---	---

Inspection book No. 12.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
551	July 12	Romulus.....	Columbia Wire Works.....	Wire cloth.....	run.	full
552	" 12	"	J. M. Hummell Mfg Co.....	Window and door screens	idle	"
553	" 12	"	Henry Seestedt Furniture Co.....	Furniture.....	run.	full
554	" 12	"	Romulus Knitting Mills.....	Knit goods.....	"	"
555	" 12	"	R. Bauer.....	Lumber.....	"	"
556	" 12	Taylor Centre	William Locke.....	Saw, feed and cider mill.	idle	"
557	" 12	Hand Station	Baner & McMullen.....	Lumber and timber.....	run.	full
558	" 15	Dearborn.....	A. J. Wagner & Son.....	Brick.....	"	"
559	" 15	"	Dearborn Mills.....	Flour and feed.....	"	"
560	" 15	"	Ives & Frambach.....	Men's clothing.....	"	"
561	" 15	"	Nowlin Bros.....	Lumber.....	"	"
562	" 15	"	Nowlin Bros.....	"	"	"
563	" 15	Wayne.....	Wayne Feed Mills.....	Feed.....	"	part
564	" 15	"	Prouty & Glass.....	Carriages and sleighs.....	"	full
565	" 15	"	E. P. Coy.....	Cigars.....	"	"
566	" 15	"	J. Fitzgibbons.....	"	"	"
567	" 16	"	Bailey Novelty Works.....	Machine supplies, etc.....	"	"
568	" 16	"	G. A. & T. M. Fleischer.....	Cigars.....	"	"
569	" 16	"	Frank Stranger Saw Mill.....	Lumber.....	idle	"
570	" 16	"	Earl Goldsmith.....	Brick.....	run.	full
571	" 16	"	C. Lohr.....	Lumber and feed.....	idle	"
572	" 16	Canton.....	Milton E. Carlton.....	Brick and tile.....	run.	full
573	" 16	Denton.....	C. M. Colton.....	Lumber and timber.....	idle	"
574	" 16	Rawsonville.....	Rawsonville Mills.....	Flour and feed.....	run.	full
575	" 16	"	Huron Woolen Mills.....	Knit goods.....	"	"
576	" 29	Greenfield.....	Greenfield Mills.....	Feed.....	"	part
577	" 29	Redford.....	Redford Mills.....	"	"	"
578	" 29	"	H. P. Burgess.....	Brick and tile.....	"	full
579	" 29	"	Redford Mills.....	Flour and feed.....	"	part
580	" 29	Sandhill.....	Lawrence & Wells.....	Butter and cream.....	"	full
581	" 29	"	Wilmarth Bros.....	Lumber.....	idle	"
582	" 29	Elm.....	G. A. Rhode.....	"	"	"
583	" 29	Pike's Peak.....	Nankin Mills.....	Flour and feed.....	run.	full
584	" 29	"	Thomas Kerr.....	Brick and tile.....	idle	"
585	" 30	Tonquish.....	Proctor & Fox.....	Lumber and timber.....	"	"
586	" 30	Plymouth.....	L. L. Lewis.....	Lumber.....	"	"
587	" 30	"	Daley Mfg Co.....	Air guns.....	run.	full
588	" 30	"	L. H. Bennett.....	Fanning mills, etc.....	"	"
589	" 30	"	Plymouth Cheese Factory.....	Cheese.....	"	"
590	" 30	"	Markham Air Rifle Co.....	Air rifles.....	"	"
591	" 31	"	Plymouth Cigar Mfg Co.....	Cigars.....	"	"
592	" 31	"	Charles Brems.....	Wagon and carriages.....	"	"
593	" 31	"	H. Willis.....	Wagons.....	"	"
594	" 31	"	Thomas Sherwood.....	Cider and jelly.....	idle	"
595	" 31	"	Shafer Bros.....	Castings, etc.....	run.	full
596	" 31	"	Plymouth Mill.....	Printed matter.....	"	"
597	" 31	"	Plymouth Laundry.....	Laundry work.....	"	"
598	Aug. 1	"	Plymouth Mills.....	Flour and feed.....	"	"
599	" 1	"	Phoenix Mills.....	"	"	"
600	" 1	Northville.....	Clover Condensed Milk Co.....	Condensed milk.....	"	part

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
551	60	60	20	6	---	---	---	---	10	\$175	60	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	---
552	60	60	50	---	---	---	---	---	10	150	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---
553	60	60	30	4	---	---	---	---	10	250	60	---	---	yes	yes	---	---	---	---	---	---	---	---
554	60	60	20	2	7	---	---	---	10	225	60	---	---	---	---	---	---	---	---	---	---	---	yes
555	60	60	7	7	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
556	60	60	4	---	---	---	---	---	10	250	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	---
557	60	60	7	---	---	---	---	---	10	250	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	---
558	34	54	24	24	---	2	6	yes	9	800	60	---	---	---	---	---	---	---	---	---	---	---	---
559	60	60	3	2	---	---	---	---	10	80	60	---	---	no	no	---	no	---	---	---	---	---	---
560	55	55	40	---	17	---	---	---	9	700	60	---	---	yes	yes	yes	yes	---	---	---	---	yes	---
561	60	60	14	14	---	---	---	---	10	500	60	---	---	---	---	---	---	---	no	---	---	---	---
562	60	60	15	15	---	---	---	---	10	550	60	---	---	---	---	---	---	---	---	---	---	---	---
563	60	60	4	---	---	---	---	---	10	800	60	---	---	yes	yes	---	---	yes	---	yes	---	---	---
564	60	60	100	73	2	---	---	---	10	3,000	43	---	---	---	---	---	---	---	---	---	---	---	yes
565	48	48	2	2	---	---	---	---	8	50	60	---	---	---	---	---	---	---	---	---	---	---	---
566	48	48	3	3	---	---	---	---	8	120	60	---	---	---	---	---	---	---	---	---	---	---	---
567	60	60	5	5	---	---	---	---	10	130	60	---	---	yes	yes	---	---	yes	yes	yes	---	---	---
568	60	60	10	7	1	---	2	yes	9	250	60	---	---	---	---	---	---	yes	yes	yes	---	---	---
569	60	60	6	6	---	---	---	---	10	---	---	---	---	---	---	yes	no	---	yes	yes	no	yes	---
570	60	60	6	6	---	---	---	---	10	225	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	---
571	60	60	5	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
572	60	60	7	7	---	---	---	---	10	300	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	---
573	60	60	12	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
574	60	60	3	2	---	---	---	---	10	80	60	yes	---	yes	yes	yes	no	no	yes	yes	no	yes	---
575	60	60	14	5	---	---	---	---	10	200	60	---	---	no	no	---	---	yes	no	no	---	---	---
576	60	60	2	2	---	---	---	---	10	80	60	---	---	---	---	---	---	yes	yes	yes	---	---	---
577	40	40	2	2	---	---	---	---	10	90	60	---	---	---	---	---	---	---	---	---	---	---	---
578	40	40	6	6	---	---	---	---	10	225	60	---	---	---	---	---	---	---	---	---	---	---	---
579	60	60	3	3	---	---	---	---	10	90	60	---	---	no	no	---	---	yes	---	---	---	---	---
580	60	60	3	2	---	---	---	---	10	80	60	---	---	---	---	---	---	---	---	---	---	---	---
581	60	60	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
582	60	60	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
583	60	60	2	---	---	---	---	---	10	90	60	yes	---	no	no	yes	no	yes	yes	yes	no	yes	---
584	60	60	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
585	60	60	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
586	60	60	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
587	60	60	25	20	---	---	---	---	10	650	60	yes	no	yes	yes	yes	no	yes	yes	yes	yes	yes	---
588	60	60	10	4	---	---	---	---	10	125	60	---	---	---	---	---	---	---	---	---	---	---	---
589	60	60	3	---	---	---	---	---	10	110	60	---	---	---	---	---	---	---	---	---	---	---	---
590	60	60	80	72	3	---	---	---	10	1,500	60	---	yes	yes	yes	---	---	yes	---	---	---	---	yes
591	48	48	10	8	2	---	---	---	8	300	60	---	---	---	---	---	---	---	---	---	---	---	---
592	60	60	10	7	---	---	---	---	10	300	60	---	---	yes	yes	---	---	yes	yes	yes	---	---	---
593	60	60	4	4	---	---	---	---	10	160	60	---	---	---	---	---	---	---	---	---	---	---	---
594	60	60	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
595	60	60	6	4	---	---	---	---	10	150	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---
596	60	60	4	---	---	---	---	---	16	120	60	---	---	---	---	---	---	---	---	---	---	---	---
597	60	60	4	2	2	---	---	---	10	120	60	---	---	---	---	---	---	---	---	---	---	---	yes
598	60	60	3	---	---	---	---	---	10	110	60	---	---	---	---	---	---	---	---	---	---	---	---
599	60	60	3	---	---	---	---	---	10	110	60	---	---	no	yes	---	---	no	yes	---	---	---	---
600	60	60	12	8	4	---	---	---	10	340	60	no	---	---	yes	---	---	yes	---	---	---	---	yes

Inspection book No. 13.

TABLE No. 1.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
601	Aug. 1	Northville.	Globe Furniture Co.	Church and school furn.	run.	full
602	" 1	"	Columbia Refrigerator Co.	Refrigerators.	"	"
603	" 1	"	Ely Dowel & Manufacturing Co.	Casket mouldings.	"	"
604	" 1	"	Argo Mills	Flour and feed.	"	"
605	" 2	"	J. A. Dubuar Manufacturing Co.	Wheelb'r'ws, pulleys, etc.	"	"
606	" 2	"	Northville Mills	Flour and feed	"	"
607	" 2	"	U. S. Fish Commission	Fish	"	"
608	" 2	"	Northville Record	Printed matter	"	"
609	" 2	"	City Laundry	Laundry work	"	"
610	" 2	"	American Bell Foundry Co.	Bells.	"	"
611	" 6	Detroit.	American Paper Stock Co.	Sort paper	"	"
612	" 6	"	Symonds Wire and Iron Works	Iron and wire goods	"	"
613	" 6	"	Phoenix Wire Works. No. 3	"	"	"
614	" 6	"	Western Knitting Mills	Gloves and mittens	"	"
615	" 7	"	David Stotts Flouring Mill	Flour and feed	"	"
616	" 7	"	The Howard & Northwood Malt Mfg. Co.	Malt.	"	"
617	" 7	"	J. L. Gearing & Sons	Buildings	"	"
618	" 7	"	Rogers Typographic Co.	Type making machines	"	part
619	" 7	"	Miles & Hecker	Edge tools	"	full
620	" 7	"	C. P. Crawford	Wagons	"	"
621	" 8	"	Oliver & Overy	Candy	"	"
622	" 8	"	C. E. Moss	Carriages and wagons	"	"
623	" 8	"	Eagle Carpet Cleaning Works	Cleaning carpets	"	"
624	" 8	"	St. Louis Brewing Co.	Beer	"	"
625	" 8	"	Snowflake Laundry	Laundry work	"	"
626	" 8	"	The Wagner Baking Co., No. 1.	Bread	"	"
627	" 8	"	Cameron's Bakery	Bread and cakes	"	"
628	" 8	"	Castle Bakery Co.	"	"	"
629	" 9	"	Excelsior Corset Works	Corsets	"	"
630	" 9	"	J. J. Utter	Carriages and sleighs	"	"
631	" 9	"	Princess Laundry	Laundry work	"	"
632	" 9	"	The Cass Laundry	"	"	"
633	" 9	"	Novelty Pop-corn Works	Pop-corn and candy	"	"
634	" 9	"	Ives & Wolf	Wagons and carriages	"	"
635	" 12	"	Monitor Cigar Co.	Cigars	"	"
636	" 12	"	Trojan Laundry	Laundry work	"	"
637	" 12	"	Wayne Laundry	"	"	"
638	" 12	"	J. G. Unseald	Wagons and carriages	"	"
639	" 12	"	The Voigt Brewing Co.	Bottled beer	"	"
640	" 12	"	The Voigt Brewing Co.	Beer	"	"
641	" 14	"	G. P. Askin Carriage Factory	Carriages	"	"
642	" 14	"	Wayne Co. Creamery	Butter and cream	"	"
643	" 14	"	Alv. rd & Co.	Stationers specialties	"	"
644	" 14	"	Heech & Clark	Tools and specialties	"	"
645	" 14	"	Acme Wh. Lead & Col'r W'ks, No. 1	White lead and paint	"	part
646	" 14	"	Acme W. Lead & Color W'ks, No. 4	Dry & col'd Japan paints	"	"
647	" 14	"	Teple & Golden	Buildings	"	full
648	" 14	"	Detroit Carpet Cleaning Works	Clean and make carpets	"	"
649	" 14	"	R. Helson	Buildings	"	"
650	" 15	"	T. Zoltowski	Beer	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shafts used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
601	60	60	200	163	3	1	2	yes	10	\$5,600	60	yes	no	no	no	yes	no	yes	yes	yes	yes	yes	yes
602	60	60	60	5	---	---	---	---	10	350	60	---	---	yes	yes	---	---	---	---	---	---	---	---
603	60	60	10	5	---	---	---	---	10	250	60	---	---	---	---	---	---	---	---	---	---	---	---
604	60	60	2	3	---	---	---	---	10	120	60	---	---	yes	yes	---	---	---	---	---	---	---	---
605	60	60	50	40	---	---	---	---	10	1,100	60	---	---	---	---	---	---	---	---	---	---	---	---
606	60	60	7	4	1	---	---	---	10	235	60	---	---	no	no	---	---	no	---	---	---	---	---
607	60	60	15	7	---	---	---	---	10	30	60	---	---	yes	yes	---	---	yes	---	---	---	---	---
608	60	60	3	2	---	---	---	---	10	120	60	---	---	---	---	---	---	---	yes	yes	---	---	---
609	60	60	4	4	2	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---
610	60	60	26	6	---	---	---	---	10	†225	60	---	---	---	---	---	---	---	---	---	---	---	---
611	54	54	30	5	20	---	---	---	9	650	*30	---	yes	yes	yes	---	---	yes	---	---	---	---	yes
612	56	60	15	12	---	---	---	---	10	480	*30	---	---	---	---	---	---	---	yes	yes	---	---	---
613	60	60	25	14	---	---	1	yes	10	500	*30	---	---	---	---	---	---	---	---	---	---	---	---
614	54	54	215	5	210	2	21	no	9	4,540	60	---	no	---	---	---	---	---	---	---	---	---	yes
615	60	60	40	40	---	---	---	---	10	1,350	60	---	---	---	---	---	---	---	---	---	---	---	---
616	60	60	30	30	---	---	---	---	10	1,600	60	---	---	---	---	---	---	---	---	---	---	---	---
617	54	54	150	125	---	---	---	---	9	6,000	45	---	---	---	---	---	---	---	---	---	---	---	---
618	60	55	100	45	11	---	2	---	10	2,300	45	---	---	---	---	---	---	---	---	---	---	---	yes
619	60	60	10	4	---	---	---	---	10	200	45	---	---	no	no	---	---	---	---	---	---	---	---
620	60	60	5	2	---	---	---	---	10	140	60	---	---	yes	yes	---	---	---	---	---	---	---	---
621	60	60	25	2	1	---	---	---	10	150	60	---	---	---	---	---	---	---	yes	yes	---	---	yes
622	60	60	6	4	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---
623	60	60	4	2	---	---	---	---	10	125	60	---	---	---	---	---	---	---	yes	yes	---	---	---
624	60	60	10	10	---	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	---
625	54	54	5	2	2	---	---	---	9	125	60	---	---	---	---	---	---	---	---	---	---	---	yes
626	60	60	40	38	2	---	---	---	10	1,500	*30	---	---	yes	yes	---	---	yes	---	---	---	---	---
627	60	60	5	3	---	---	---	---	10	175	60	---	---	---	---	---	---	---	---	---	---	---	---
628	60	60	5	3	---	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	---
629	52	52	12	2	7	---	---	---	9	300	60	---	---	yes	yes	---	---	---	---	---	---	---	---
630	60	60	5	5	---	---	---	---	10	250	60	---	---	---	---	---	---	yes	---	---	---	---	---
631	54	54	10	4	6	---	---	---	9	300	60	---	---	---	---	---	---	yes	yes	---	---	---	yes
632	54	54	7	4	2	---	---	---	9	225	60	---	---	yes	yes	---	---	yes	---	---	---	---	---
633	60	60	7	5	2	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	no	---
634	60	60	7	5	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	yes	---
635	45	48	10	8	---	---	---	---	8	110	60	---	yes	---	---	---	---	---	---	---	---	---	---
636	54	54	50	7	43	---	---	---	9	1,200	60	---	---	---	---	---	---	---	yes	yes	---	---	yes
637	54	54	15	6	5	---	1	yes	9	350	60	---	---	---	---	---	---	---	---	---	---	---	---
638	60	60	8	5	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	---
639	60	60	12	12	---	1	---	yes	10	375	60	---	no	---	---	---	---	yes	yes	---	---	---	---
640	60	60	40	32	---	---	---	---	10	2,000	60	---	---	---	---	---	---	---	---	---	---	---	---
641	60	60	6	6	---	---	---	---	10	250	60	---	---	---	---	---	---	---	---	---	---	---	---
642	60	60	42	42	---	---	---	---	10	1,400	60	---	no	no	no	---	---	yes	yes	---	---	---	yes
643	59	59	15	2	4	---	---	---	10	200	60	---	---	yes	yes	---	---	---	---	---	---	---	---
644	60	60	15	10	---	---	---	---	10	550	60	---	no	---	---	---	---	---	---	---	---	---	---
645	50	48	90	55	20	---	1	yes	10	2,600	*30	---	yes	---	---	---	---	---	---	no	---	---	yes
646	40	48	16	6	---	---	---	---	10	225	*30	---	no	---	---	---	---	---	yes	---	---	---	---
647	54	54	50	20	---	---	---	---	9	800	60	---	---	---	---	---	---	---	---	yes	no	---	---
648	60	60	15	11	---	---	---	---	10	400	60	---	---	---	---	---	---	---	---	---	---	---	---
649	54	54	40	30	---	---	---	---	9	1,300	60	---	---	---	---	---	---	---	yes	yes	---	---	---
650	60	60	5	5	---	---	---	---	10	260	60	---	---	---	---	---	---	---	---	---	---	---	---

* Permit given by inspector.

† Estimated.

Inspection book No. 14.

TABLE No. 1.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
681	Aug. 15	Detroit	Mutual Brewing Co.	Beer	run.	full
682	" 15	"	John Whittaker	Buildings	"	"
683	" 15	"	John Rothfuss	Bread and cakes	"	"
684	" 16	Springwells	Mich. Brass and Iron Works	Valves and fire plugs	"	"
685	" 16	Detroit	A. Laffrey	Sash, doors, etc.	"	"
686	" 16	"	West Detroit Chair Co.	Chairs	"	"
687	" 16	"	Detroit Flower Pot Factory	Flower pots	"	"
688	" 16	"	Mathes Bros.	Wagons	"	"
689	" 16	"	William Rowe	Printed matter	"	"
690	" 16	"	Hamilton, Carhartt & Co.	Men's clothing	"	"
691	" 16	"	Star Laundry	Laundry work	"	"
692	" 16	"	Geretng & Co.	Pickles and mustard	"	"
693	" 19	"	A. Erschig	Wagons and carriages	"	"
694	" 19	"	DeMan Bros.	Sash, doors, etc.	"	"
695	" 19	"	Fox Bros.	Special furniture	"	"
696	" 19	"	L. B. DeGalen	Wood turning	"	"
697	" 19	"	Delbridge & Cameron	Sash doors, etc.	"	"
698	" 19	"	Detroit Cement Sewer Pipe Works	Cement sewer pipe	"	"
699	" 20	"	Northwest Cigar M'g Co.	Cigars	"	"
700	" 20	"	Detroit Glove Works	Gloves and mittens	idle	"
671	" 20	"	The Wolverine Laundry Co.	Laundry work	run.	full
672	" 20	"	F. Witteberger	Bread and cakes	"	"
673	" 20	"	A. Bader	" " "	"	"
674	" 20	"	Boston Bakery	" " "	"	"
675	" 20	"	F. W. Zimmerman	Wagons	"	"
676	" 21	"	Cuban & Turk. Cigar and Tob. Co.	Cigars	"	"
677	" 21	"	London Laundry	Laundry work	"	"
678	" 21	"	Palace Laundry	"	"	"
679	" 21	"	B. J. Fafeyta	Men's clothing	"	"
680	" 21	"	Havana Cigar Factory	Cigars	"	"
681	" 21	"	William Heimbuch	"	"	"
682	" 21	"	Waterloo Yeast Co.	Yeast	"	"
683	" 22	"	J. M. Flinn Ice Cream Co.	Ice cream	"	"
684	" 22	"	Utopia Laundry	Laundry work	"	"
685	" 22	"	Detroit Roller Mills	Flour and feed	"	"
686	" 22	"	Winfield & Haynes	Carriages	"	"
687	" 22	"	Det. Galv'zing & Sheet Metal W'ks	Sheet metal goods	"	"
688	" 22	"	Banner Laundry Co.	Laundry work	"	"
689	" 23	"	Michigan Picture Co.	Picture frames	"	"
690	" 23	"	Winn & Hammond	Book binding	"	"
691	" 23	"	C. P. Collins & Co.	Cigars	"	"
692	" 23	"	Central Laundry	Laundry work	"	"
693	" 23	"	Vienna Brewing Co.	Ale, porter and beer	idle	"
694	" 23	"	West Side Brewing Co.	Beer and porter	run.	full
695	" 23	"	Michigan Electric Co.	Electric appliances	"	"
696	" 23	"	Edison Illuminating Co.	Electric light	"	"
697	" 27	"	L. O. Skinkle	Cigars	"	"
698	" 27	"	Joe Goodman	"	"	"
699	" 27	"	J. P. Lieberman	"	"	"
700	" 27	"	Perrien Bros.	Flour and feed	idle	"

THIRD ANNUAL REPORT.

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District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shutters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
651	60	60	5	5					10	\$275	60	yes		yes	yes	yes	no	yes	yes	yes	no	yes	
652	54	54	10	10					9	400	60			yes	yes	yes		yes	yes	yes	no	yes	
653	60	60	6	6					10	200	60			yes	yes	yes		yes	yes	yes	yes	yes	
654	60	60	200	175			4	yes	10	8,500	*30		no	yes	yes	yes		yes	yes	yes	yes	yes	yes
655	54	54	45	22					9	900	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
656	60	60	28	15					10	550	45			yes	yes	yes		yes	yes	yes	yes	yes	yes
657	60	60	20	10					10	850	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
658	60	60	5	4					10	180	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
659	54	54	6	5					9	185	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
660	54	54	230	10	220			yes	9	3,500	*30			yes	yes	yes		yes	yes	yes	yes	yes	yes
661	54	54	5	2					9	150	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
662	60	60	6	4					10	200	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
663	60	60	6	6					10	250	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
664	54	54	55	40					9	1,800	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
665	54	54	12	6					10	250	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
666	60	60	6	4					9	150	*30			yes	yes	yes		yes	yes	yes	yes	yes	yes
667	54	54	36	36					9	1,350	*30			yes	yes	yes		yes	yes	yes	yes	yes	yes
668	60	60	8	8					10	360	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
669	48	48	7	5		1	1	yes	8	200	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
670	60	60	10											yes	yes	yes		yes	yes	yes	yes	yes	yes
671	54	54	6	3	3				9	200	60	yes		yes	yes	yes	no	yes	yes	yes	no	yes	yes
672	54	54	17	13	2				9	550	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
673	54	54	6	3	3				9	200	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
674	54	54	5	3	2				9	200	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
675	60	60	5	4					10	140	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
676	48	48	6	4	2				8	170	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
677	54	54	25	5	20				9	600	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
678	54	54	28	5	23				9	725	60			no	no	yes		yes	yes	yes	yes	yes	yes
679	54	54	25	6	2				9	800	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
680	48	48	12	9	3				8	400	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
681	48	48	10	7	1				8	275	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
682	60	60	14	6	5				10	525	60			no	yes	yes		yes	yes	yes	yes	yes	yes
683	60	60	18	18					10	925	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
684	54	54	9	5	4				9	275	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
685	60	60	6	6					10	250	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
686	60	60	7	7					10	325	*30			yes	yes	yes		yes	yes	yes	yes	yes	yes
687	60	60	20	20			3	yes	10	650	60			no	yes	yes		yes	yes	yes	yes	yes	yes
688	54	54	130	14	86			no	9	2,500	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
689	60	60	4						10	110	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
690	56	56	86	59	27				9	2,900	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
691	48	48	60	28	8				8	1,700	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
692	54	54	6	2	3				9	120	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
693	60	60	20						16	1,200	60	yes		yes	yes	yes	no	yes	yes	yes	yes	yes	yes
694	60	60	22	20					10	†275	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
695	60	60	8	7	1									yes	yes	yes		yes	yes	yes	yes	yes	yes
696	72	72	41	40	1				10	2,200	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
697	48	48	5	3	1			no	8	150	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
698	48	48	4	4					8	150	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
699	48	48	13	10	3				8	450	60			yes	yes	yes		yes	yes	yes	yes	yes	yes
700	60	60	6											yes	yes	yes		yes	yes	yes	yes	yes	yes

* Permit given by inspector.
† Estimated.

Inspection book No. 15.

TABLE No. 1.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
701	Aug. 29	Detroit.	Detroit Alaska Knitting Co.	Knit goods.	run.	full
702	" 29	"	Michigan Volkblatt.	Printed matter.	"	"
703	" 29	"	Detroit Stained Glass Works.	Cut and stained glass.	"	"
704	" 29	"	Pollak-American Publishing Co.	Printed matter.	"	"
705	" 30	"	A. Laitner.	Brushes.	"	"
706	" 30	"	Geo. J. Roessinger.	Cigars.	"	"
707	" 30	"	A. Jacobs & Co.	Men's clothing.	"	"
708	" 30	"	City Metal Works.	Tin and sheet metal.	"	"
709	" 31	"	B. Stroh Brewing Co.	Beer.	"	"
710	" 31	"	B. Stroh Brewing Co.	Bottled beer.	"	"
711	" 31	"	A. Rnoff Brewing Co.	Beer.	"	"
712	" 31	"	Behr Bros.	Sheep skins and hides.	"	"
713	Sept. 2	"	C. Lempke.	Wagons.	"	"
714	" 3	"	Posselina Bros. Manufacturing Co.	Furniture.	"	"
715	" 3	"	Geo. W. Larkins & Co.	Sash, doors and blinds.	"	"
716	" 3	"	J. G. Junker.	Wagons and carriages.	"	"
717	" 3	"	Rudolph Bolts Manufacturing Co.	Furniture and bar fixtures.	"	"
718	" 3	"	Michigan Casket Co.	Caskets.	"	"
719	" 4	"	A. Neuman Manufacturing Co.	Tin and iron goods.	"	"
720	" 4	"	Wm. Sauer.	Tube and barrels.	"	part
721	" 4	"	J. Rowe.	Files.	"	full
722	" 4	"	Detroit Chicory Co.	Chicory.	"	"
723	" 4	"	Otto Schemansky.	Marble.	"	"
724	" 4	"	Steinheiser Bros.	Sewer pipe.	"	"
725	" 4	"	Louis Steiner.	Bakery.	"	"
726	" 5	River Rouge.	Brownlee & Co.	Lumber and timber.	"	"
727	" 5	"	Salliotte & Ferguson.	"	"	"
728	" 5	"	Detroit Sulphite Fiber Co.	Paper.	"	"
729	" 5	"	W. H. Parker.	Lards, tallow, etc.	"	"
730	" 5	"	Sutton Manufacturing Co., No. 2.	Pails and barrel heading.	"	"
731	" 5	"	Delta Lumber Co.	Sash, doors and blinds.	"	"
732	" 5	"	Viager & Quiring.	Lime, etc.	idle	"
733	" 6	Delray.	Detroit City Glass Works.	Window glass.	"	"
734	" 6	"	Exposition Brewing Co.	Beer.	run	full
735	" 6	"	Cleveland Cedar Co.	Poles and posts.	"	"
736	" 6	Detroit.	Michigan Peninsular Caf Co.	Rod and bar iron.	"	"
737	" 6	"	Galvin Valve and Hydrant Works.	Valves and hydrants.	"	"
738	" 6	"	Clark Dry Dock Co.	Boats.	"	"
739	" 6	"	Gollar Steam Yachts and Eng. W'ks.	Yachts and engines.	"	"
740	" 7	"	J. Sprenger & Sons.	Boilers.	"	"
741	" 7	"	Western Engine Works.	Engines, etc.	"	"
742	" 7	"	Aug. Bennett.	Wagons and carriages.	"	"
743	" 7	"	Damask & Spader.	Wagons.	"	"
744	" 9	"	Schulte Soap Co.	Soap.	"	"
745	" 9	"	Morton & Cresscy.	Dressed lumber.	idle	"
746	" 9	"	H. Hems & Son.	Lime, sand and tile.	run.	full
747	" 9	"	E. Starret.	Dressed lumber.	"	"
748	" 9	"	Yeomans, Chesebrough & Co.	Lumber and boxes.	"	"
749	" 9	"	Peninsular Soap & Chemical Co.	Soap.	idle	"
750	" 9	"	Detroit Gas Co.	Coal and water gas.	run.	full

THIRD ANNUAL REPORT.

39

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1898.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
701	60	60	60	5	45	---	1	yes	10	\$1,250	*30	yes	no	yes	yes	yes	yes	yes	yes	yes	no	yes	yes
702	54	54	20	18	4	---	---	---	9	1,100	60	---	---	---	---	---	---	---	---	---	---	---	---
703	60	60	10	8	---	---	---	---	10	400	80	---	---	---	---	---	---	---	---	---	---	---	---
704	60	60	4	4	---	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	---
705	60	60	8	3	2	---	1	no	10	180	60	---	---	---	---	---	---	---	---	---	---	---	yes
706	48	48	8	4	---	---	---	---	8	200	60	---	---	yes	yes	---	---	yes	---	---	---	---	---
707	54	54	60	12	33	---	---	---	9	1,075	60	---	yes	no	no	---	---	yes	yes	yes	---	yes	
708	60	60	5	5	---	---	---	---	10	230	60	---	---	---	---	---	---	---	---	---	---	---	---
709	60	60	81	81	---	---	---	---	10	3,800	60	---	---	yes	yes	---	---	yes	---	---	---	---	---
710	60	60	40	31	9	---	---	---	10	1,800	60	---	no	---	---	---	---	---	---	---	---	---	yes
711	60	60	14	14	---	---	---	---	10	840	60	---	---	---	---	---	---	---	---	---	---	---	---
712	60	60	20	10	---	---	---	---	10	500	60	---	yes	no	no	---	---	---	---	---	---	---	---
713	60	60	6	6	---	---	---	---	10	250	*30	---	---	yes	yes	---	---	---	---	---	---	---	---
714	60	60	100	86	---	---	3	yes	10	1,100	*30	---	no	no	no	---	---	---	yes	yes	yes	---	---
715	60	60	40	15	---	---	---	---	10	550	60	---	---	yes	yes	---	---	---	---	---	no	---	---
716	60	60	5	5	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---
717	60	60	30	10	---	---	---	---	10	900	*30	---	---	no	no	---	---	no	yes	yes	---	---	---
718	60	60	12	5	---	---	---	---	10	250	*30	---	---	yes	yes	---	---	yes	---	---	---	---	---
719	60	60	5	4	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---
720	54	48	40	40	---	---	---	---	8	1,500	*30	---	---	---	---	---	---	---	---	---	---	---	---
721	60	60	8	4	---	---	---	---	10	150	*30	---	---	---	---	---	---	---	---	---	---	---	---
722	60	60	30	6	6	---	1	no	10	350	*30	---	no	no	no	---	---	yes	---	---	---	yes	
723	54	54	6	6	---	---	---	---	9	300	60	---	---	---	---	---	---	---	---	---	---	---	yes
724	60	60	6	5	---	---	---	---	10	150	*30	---	---	---	---	---	---	yes	yes	---	---	---	---
725	60	60	5	3	2	---	---	---	10	200	60	---	---	yes	yes	---	---	yes	---	---	---	---	yes
726	60	60	100	100	---	---	---	---	10	2,500	45	---	---	no	no	---	---	---	---	---	yes	---	---
727	60	+	100	75	---	---	---	---	10	2,500	45	---	---	yes	yes	---	---	---	---	---	---	---	---
728	66	66	75	73	2	---	---	---	10	2,410	60	---	yes	---	yes	---	---	---	---	---	no	yes	---
729	60	60	5	5	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---
730	60	60	45	26	---	---	2	yes	10	1,300	*30	---	---	---	---	---	---	---	---	---	yes	---	---
731	60	60	200	200	---	---	---	---	10	5,000	*30	---	---	---	---	---	---	---	---	---	no	---	---
732	60	---	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
733	48	---	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
734	60	60	10	10	---	---	---	---	10	500	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---
735	60	60	42	42	---	---	8	no	10	1,600	*30	---	---	---	yes	yes	---	yes	yes	yes	---	---	---
736	60	60	400	400	---	---	---	---	10	20,000	*40	---	---	---	---	---	---	yes	no	---	---	---	---
737	60	60	35	5	---	---	---	---	10	250	60	---	yes	---	yes	---	---	---	---	---	---	---	---
738	60	60	150	20	---	---	---	---	10	800	*30	---	---	---	---	---	---	---	---	---	---	---	---
739	60	60	15	4	---	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	---
740	60	60	20	11	---	---	---	---	10	375	60	---	---	---	---	---	---	---	---	---	---	---	---
741	60	60	5	3	---	---	---	---	10	140	*30	---	---	---	---	---	---	---	---	---	---	---	---
742	60	60	5	4	---	---	---	---	10	160	60	---	---	yes	yes	---	---	yes	---	---	---	---	---
743	60	60	4	4	---	---	---	---	10	165	*30	---	---	---	---	---	---	---	---	---	---	---	---
744	60	60	12	10	---	---	---	---	10	400	60	no	yes	no	no	---	---	---	yes	yes	---	---	---
745	60	---	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
746	60	60	20	20	---	---	---	---	10	800	60	yes	---	yes	yes	yes	no	yes	yes	yes	no	yes	---
747	60	60	15	8	---	---	---	---	10	800	60	---	---	---	---	---	---	yes	---	no	---	---	---
748	60	60	65	40	---	---	4	yes	10	1,400	45	---	---	yes	yes	---	---	yes	---	yes	---	---	---
749	60	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
750	60	+	38	30	1	---	---	---	10	1,800	60	no	no	yes	yes	yes	no	yes	yes	yes	no	yes	yes

* Permit given by inspector.

† 66 hours; running overtime.
‡ 60 hours; ten men 70 hours.

Inspection book No. 16.

TABLE No. 1.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
751	Sept. 10	Detroit.....	Michigan Malleable Iron Co.	Malleable iron.....	run.	full
752	" 10	"	Henry Houghton.....	Lime stone and sand.....	" "	" "
753	" 10	"	P. Christie & Sons, No. 1	Marble goods.....	" "	" "
754	" 10	"	P. Christie & Sons, No. 2	Stone saw mill.....	" "	" "
755	" 10	"	Wm. Steinbrecher.....	Wagons.....	" "	" "
756	" 10	"	Detroit Smelting and Refin'g W'ks	Brass and iron.....	idle	"
757	" 11	"	Chas. Pohlman & Co.....	Furniture.....	run.	full
758	" 11	"	Lake Superior Graphite Works.....	Pulverized graphite.....	" "	" "
759	" 11	"	Detroit Graphite M'g Co.....	Paints and lubricants.....	" "	" "
760	" 11	"	Balnap, Essler & Co.....	Wagons and trucks.....	" "	" "
761	" 11	"	Michigan Central Elevator, A.....	Grain.....	idle	"
762	" 11	"	Michigan Central Elevator, B.....	"	run.	full
763	" 11	"	Union Depot Elevator Co.....	"	" "	" "
764	" 12	"	A. Backus, Jr., & Sons.....	Lumber and boxes.....	" "	part
765	" 12	"	John Beyster.....	"	" "	full
766	" 12	"	Daniel Scotten & Co.....	Tobacco.....	" "	part
767	" 12	"	Detroit Cop. and Brass Roll'g Mill	Rolled copper and brass.....	" "	full
768	" 12	"	Fort Wayne & Bell Isle R'y Co.....	Electric power.....	" "	" "
769	" 13	"	Fort Wayne & Bell Isle R'y Co.....	Repairing cars.....	" "	" "
770	" 13	"	E. W. Price.....	Bakery goods.....	" "	" "
771	" 13	"	House of the Good Shepherd.....	Tailor made goods.....	" "	" "
772	" 13	"	House of the Good Shepherd.....	Laundry work.....	" "	" "
773	" 13	"	W. G. Young & Co.....	Cut stone.....	" "	" "
774	" 13	"	H. S. Robinson & Co.....	Shoes.....	" "	part
775	" 14	"	Carrie & Conn.....	Cedar blocks.....	" "	full
776	" 14	"	Detroit Laundry.....	Laundry work.....	" "	" "
777	" 16	"	H. W. Becker.....	Furs.....	" "	" "
778	" 16	"	Fox & Knahler.....	Tailor made goods.....	" "	" "
779	" 16	"	Theresa Heine.....	Furs.....	" "	" "
780	" 16	"	Novelty Knitting Mills.....	Mittens and gloves.....	" "	" "
781	" 16	"	Walter Buhl & Co.....	Hats, caps and furs.....	" "	" "
782	" 16	"	H. A. Newland & Co.....	Furs and cloth garments.....	" "	" "
783	" 17	"	Charles E. Buysee.....	Tailor made goods.....	" "	" "
784	" 17	"	E. L. Heubner.....	Furs.....	" "	" "
785	" 17	"	Ashbaugh, Dittrich & Co.....	"	" "	" "
786	" 17	"	J. F. Plimley.....	Jewelry.....	" "	" "
787	" 18	"	J. H. Stone & Co.....	Printed matter.....	" "	" "
788	" 18	"	W. H. Miller.....	Furs.....	" "	" "
789	" 18	"	Martin Maier & Co.....	Trunks, travel'g bags, etc.....	" "	" "
790	" 18	"	Michigan Wire and Iron Works.....	Wire cloth and iron beds.....	" "	" "
791	" 18	"	Michigan Galvanizing Works.....	Galvanized iron.....	" "	" "
792	" 18	"	Lichtenberg & Sons.....	Beans, produce, etc.....	" "	" "
793	" 18	"	Detroit Flower Pot Factory.....	Flower pots.....	" "	" "
794	" 20	"	John Mayer.....	Bakery goods.....	" "	" "
795	" 20	"	Henry Kehler.....	Wagons.....	" "	" "
796	" 20	"	Peninsular Electric Light Co.....	Electric lights.....	" "	" "
797	" 20	"	Stephen Pratt Boiler Works.....	Boilers and tanks.....	" "	" "
798	" 20	"	J. F. Hasty & Sons.....	Barrels.....	" "	part
799	" 20	"	West Side Lumber Co.....	Lumber and boxes.....	" "	full
800	" 20	"	Hammond, Standish & Co.....	Meats and provisions.....	" "	" "

THIRD ANNUAL REPORT.

41

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per d. y for males under 18 and females under 21 years of age	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
751	60	60	200	150	1	1	3	no	10	\$5,500	* 30	yes	no	yes	yes	yes	no	yes	yes	yes	no	no	yes
752	60	60	40	40	1				10	1,050	60												
753	60	60	15	15					10	650	60	no		yes	yes			yes					
754	60	60	4	3					10	120	60	yes											
755	60	60	6	4					10	175	60												
756	60		20																				
757	60	60	30	30			1	no	10	1,100	* 30	yes	yes	yes	yes	yes	no	yes	yes	no	no	yes	
758	60	60	4	3					10	150	60							yes					
759	60	60	12	6					10	350	60			no	no				yes				
760	60	60	9	9					10	350	* 30			yes	yes								
761	60		24																				
762	60	60	15	9					10	450	60	yes		yes	yes	yes	no	yes	yes	yes	yes	yes	
763	60	60	30	15					10	600	60							yes	yes				
764	60	54	150	90	2		14	no	10	1,800	45	yes											yes
765	60	60	60	30			1		10	1,100	* 30			no							no		
766	60	54	919	304	615	1	36		10	2,100	* 40		yes	yes									yes
767	60	60	300	300			1		10	11,000	* 30												
768	72	72	10	10					10	500	60												
769	60	60	18	18					10	900	60		no										
770	54	54	10	6	2				9	350	60							yes	yes				yes
771	60	60	40	40					10	†	80		yes				yes						
772	60	60	95	4	91				10	†	80												yes
773	54	54	16	10					9	1,050	60						no						
774	60	30	82	52	30				10	3,000	60	yes	yes	yes			yes	yes	yes	yes	yes	yes	yes
775	60	60	52	52					10	1,700	* 30										no		
776	54	54	6	2	2				9	180	60												yes
777	54	54	10	2	5				9	200	60												
778	54	54	6	5	1				9	200	60												
779	54	54	8	4	4				9	300	60												
780	54	54	75	4	71		10	no	9	950	60	yes	yes	yes			yes						
781	54	54	50	12	38				9	1,300	60								no				
782	54	54	100	20	60				9	250	60							no		yes			
783	54	54	6	2	2				9	150	60												
784	54	54	10	3	2				9	240	60												
785	54	54	40	10	20				9	1,000	60			yes	yes			yes			yes		
786	54	54	6	4					9	250	60							yes	yes	no			
787	56	56	20	19	1				9	850	60	yes											yes
788	54	54	50	30	20				9	1,500	60							yes					
789	60	60	85	59	1		2	yes	10	2,000	60									no			no
790	60	60	150	65	75		12		10	4,000	50												yes
791	60	60	10	5					10	260	60								yes				
792	60	60	10	2					10	200	60			yes	yes			yes					
793	60	60	17	14			5		10	475	* 30												
794	54	54	5	3	2				9	140	60												yes
795	60	60	4	4					10	160	60												
796	72	72	14	14					10	700	60								yes	yes			
797	60	60	30	16					10	750	* 30												
798	60	57	80	40					10	1,600	60			yes	yes			yes					
799	60	60	28	15	1				10	800	* 30										yes		
800	60	60	125	125					10	5,850	60	yes	yes	yes				yes			no		

* Permit given by inspector.
† No wages or salary paid.

Inspection book No. 17.

TABLE No. 1.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
801	Sept. 20	Detroit	Parker, Webb & Co.	Meats, etc.	run.	full
802	" 23	"	Griffin Car Wheel Co.	Car wheels and castings	"	"
803	" 23	"	John Brennan & Co.	Boilers	"	"
804	" 23	"	Detroit Range Boiler Co.	Range boilers	"	"
805	" 23	"	M. McNamara	Varnish	"	"
806	" 23	"	Detroit Stave and Heading Works	Staves and heading	idle	"
807	" 24	"	Frank W. May	Hardwood lumber	run.	full
808	" 24	"	U. S. Truck Co.	Trucks, wooden ware, etc.	"	"
809	" 24	"	Columbian Brush Fiber Co.	Brushes	"	"
810	" 24	"	Joseph Woodhams	Plug tobacco boxes	"	"
811	" 24	"	C. W. Restricks	Dressed lumber	"	"
812	" 24	"	Wm. Monroe	Doors, sash and blinds	"	"
813	" 24	"	E. Fraedrichs	Tables	"	"
814	" 25	"	J. C. Bleil	Wagons and carriages	"	"
815	" 25	"	Detroit Soap Co.	Soap	"	"
816	" 25	"	Michigan Peninsular Car Shops	Cars	"	"
817	" 25	"	Mich. Penins'r Car Co., Pipe Dp't.	Water pipe	"	"
818	" 25	"	Mich. Penins'r Car Co., Fo'ndry D.	Castings	"	"
819	" 25	"	Mich. Penins'r Car Co., Wheel Dp't	Wheels	idle	"
820	" 25	"	Ferrin Bros. & Co.	Sorted beans	run.	full
821	" 26	"	R. S. Webb	Meats	"	"
822	" 26	"	Mich. Beef and Provision Co.	"	"	"
823	" 26	"	Consolidated Rolling Stock Co.	Repairing cars	"	"
824	" 26	"	Star Elevator	Grain	"	"
825	" 26	"	M. C. R. R. Locomotive Dep't.	Repairing engines	"	"
826	" 26	"	M. C. R. R.	Trim iron rails	"	"
827	" 27	"	M. C. R. R. Car Shops	Repairing cars	"	"
828	" 27	"	M. C. R. R. Car Shops	"	"	part
829	" 27	"	C. B. Hutchins & Son	Car roofing	"	full
830	" 28	"	The Empire Fiber Co.	Interlinings	"	"
831	" 30	"	C. F. Boldt	Cigars	"	"
832	" 30	"	The Barber Asphalt Paving Co.	Asphalt paving	"	"
833	" 30	"	A. Carbeille	Buildings	"	"
834	" 30	"	Ortman & Groat	Cut stone	"	"
835	" 30	"	H. A. Beebe & Co.	Stone and sewer pipe	"	"
836	" 30	"	Wolverine Manufacturing Co.	Furniture	"	"
837	Oct. 1	"	J. M. Jameson & Co.	Grain	"	"
838	" 1	"	Western Bermudes Co.	Asphalt paving	"	"
839	" 1	"	Michigan Stone Supply Co.	Cut stone and sand	"	"
840	" 1	"	Detroit Lumber and Box Factory	Lumber and boxes	"	part
841	" 2	"	Hertz & Hoeback Co.	Sash, doors and blinds	"	full
842	" 2	"	Detroit Lubricator Co.	Lubricators, oil cups, etc.	"	"
843	" 2	"	The Eagle Cigar Man's Co.	Cigars	"	part
844	" 2	"	Farrand & Votey Organ Co.	Organs	"	full
845	" 2	"	Detroit Moulding Co.	Picture frames & mould's	idle	"
846	" 2	"	Silver Star Cigar Co.	Cigars	run.	full
847	" 3	"	J. E. Bolles & Co.	Iron and wire goods	"	"
848	" 3	"	Detroit Motor Co.	Motors and elect. applia's	"	"
849	" 3	"	North Detroit Feed Mill	Feed	idle	"
850	" 3	"	Detroit Electrical Works	Street cars, etc.	run.	full

THIRD ANNUAL REPORT.

43

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
801	60	60	125	125	---	---	3	yes	10	\$8,500	60	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	---
802	60	60	200	200	---	---	3	no	10	7,000	*30	---	---	---	---	---	---	---	---	---	---	---	---
803	60	60	100	85	1	---	1	yes	10	3,000	*30	---	---	---	---	---	---	---	---	---	---	---	yes
804	60	60	20	20	---	---	---	---	10	550	*30	---	---	---	---	---	---	---	---	---	---	---	---
805	60	60	4	4	---	---	---	---	10	170	60	---	---	---	---	---	---	---	---	---	---	---	---
806	60	60	125	---	---	---	---	---	10	425	45	yes	---	---	---	yes	no	---	yes	yes	no	yes	---
807	60	60	20	17	---	---	---	---	10	650	*30	---	---	yes	yes	---	---	---	---	yes	no	---	---
808	55	55	150	20	---	---	---	---	10	600	*30	---	---	---	---	---	---	yes	---	---	---	---	yes
809	60	60	30	19	4	---	6	no	10	400	*30	---	yes	---	---	---	---	---	---	yes	yes	---	---
810	60	60	18	13	---	---	2	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
811	60	60	20	20	---	---	1	---	10	750	*30	---	---	---	---	---	---	---	---	---	---	---	---
812	54	54	34	34	---	1	1	---	9	1,300	45	---	---	yes	yes	---	---	---	---	no	yes	---	yes
813	60	60	30	12	---	---	---	---	10	40	45	---	---	---	---	---	---	---	---	---	---	---	---
814	60	60	6	5	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	no	---	---
815	55	55	50	20	10	---	---	---	10	1,000	60	---	yes	no	no	---	---	yes	yes	no	---	---	yes
816	60	60	180	613	---	4	2	no	10	12,000	45	---	---	---	---	---	---	---	---	yes	---	---	---
817	60	60	150	146	---	---	---	---	10	8,500	45	---	yes	yes	yes	---	---	---	---	yes	---	---	---
818	60	60	575	215	---	---	3	no	10	5,000	45	---	---	---	---	---	---	---	---	---	---	---	---
819	60	60	500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
820	54	54	34	4	30	4	7	no	9	500	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	yes
821	60	60	9	9	---	---	---	---	10	850	60	---	yes	yes	yes	---	---	---	---	---	---	---	---
822	60	60	30	30	---	---	---	---	10	1,800	60	---	no	---	---	---	---	---	---	---	---	---	---
823	60	60	40	40	---	---	---	---	10	1,300	60	---	---	---	---	---	---	---	---	---	---	---	---
824	60	60	5	3	---	---	---	---	10	140	60	---	---	yes	yes	---	---	yes	yes	yes	yes	---	---
825	60	60	16	16	---	---	---	---	10	750	60	---	---	---	---	---	---	---	---	---	no	---	---
826	60	60	20	20	---	---	---	---	10	800	45	---	---	---	---	---	---	---	---	---	---	---	---
827	60	60	100	90	---	---	---	---	10	3,200	45	---	---	---	---	---	---	---	---	---	---	---	---
828	60	54	500	385	---	---	---	---	10	14,500	45	---	---	yes	yes	---	---	---	---	---	no	---	---
829	60	60	14	11	---	---	---	---	10	500	45	---	---	---	---	---	---	---	---	---	---	---	---
830	54	54	12	5	5	---	---	---	9	300	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
831	48	48	4	4	---	---	---	---	8	160	60	---	---	---	---	---	---	---	---	---	---	---	---
832	60	60	40	24	---	---	---	---	10	80	60	---	---	yes	yes	---	---	---	yes	yes	---	---	---
833	60	60	20	10	---	---	---	---	10	400	*30	---	---	---	---	---	---	---	---	---	---	---	---
834	51	51	30	15	---	---	---	---	9	1,000	60	---	---	---	---	---	---	yes	yes	---	---	---	---
835	54	54	8	8	---	---	---	---	9	250	60	---	---	no	---	---	---	---	---	---	---	---	---
836	60	60	160	157	3	---	4	yes	10	3,800	45	---	yes	yes	yes	---	---	yes	yes	yes	yes	yes	yes
837	60	60	4	4	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	no	---	---
838	60	60	25	9	---	---	---	---	10	300	*30	---	---	---	---	---	---	---	---	---	---	---	---
839	51	54	40	21	2	---	---	---	9	1,100	60	---	---	---	---	---	---	---	---	---	---	yes	---
840	60	54	60	30	---	1	2	no	10	1,600	*30	---	---	yes	yes	---	---	---	yes	no	yes	---	---
841	54	†	65	65	---	---	---	---	9	2,400	60	---	---	---	---	---	---	---	---	---	---	---	---
842	60	60	190	190	---	1	4	no	10	4,000	*30	---	yes	---	---	---	yes	---	---	---	no	---	---
843	48	42	50	2	18	---	8	---	8	450	60	---	---	---	---	---	---	---	---	---	---	yes	---
844	60	60	250	206	8	---	---	---	---	---	---	---	---	---	---	---	---	yes	no	yes	---	---	---
845	60	60	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
846	48	48	6	6	---	---	1	no	8	250	60	yes	---	yes	yes	yes	no	---	---	no	yes	yes	yes
847	60	60	150	83	2	---	---	---	10	3,500	*30	---	yes	---	---	---	---	yes	yes	yes	---	yes	yes
848	53	58	150	28	---	---	---	---	10	1,000	*30	---	---	---	---	---	---	yes	---	---	---	---	---
849	60	60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
850	60	60	265	40	---	---	---	---	10	1,800	*30	yes	no	yes	yes	yes	no	yes	yes	yes	yes	yes	yes

† 60 hours; running overtime.

* Permit given by inspector.

Inspection book No. 18.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
851	Oct. 3	Detroit	Jenks & Muir Mfg Co.	Bedsteads and mattresses	run.	full
852	" 3	"	American Harrow Co.	Harrows	"	"
853	" 4	"	Johnson Carriage Co.	Carriages	"	"
854	" 4	"	Detroit Tinware Mfg Co.	Boxes and cans	"	part
855	" 4	"	F. D. Zacharias	Tables and furniture	idle	"
856	" 4	"	G. V. Leach	Beer barrels	run.	full
857	" 4	"	Huyett & Smith	Exhaust fans, vent'rs, etc	"	"
858	" 4	"	Force & Dickinson	Staves and heading	idle	"
859	" 4	"	Becker & Mohan	Carriages	run.	full
860	" 4	"	Art Stove Co.	Ranges and oil stoves	"	"
861	" 5	"	Fontaine Crossing and Elect'al Co.	Dynamos and motors	"	"
862	" 5	"	John Van der Gyp & Sons	Sash, doors and mould'gs	"	"
863	" 5	"	Otto Krause	Bakery goods	"	"
864	" 7	"	Hurtz Paper Box Co.	Paper boxes	"	"
865	" 7	"	J. T. Wings Metal and Oil Works	Metal and oil	"	"
866	" 7	"	Meier & Schuknecht	Trunks, etc.	"	"
867	" 7	"	O. P. Hazard	Pants and overalls	"	"
868	" 8	"	Howe Pattern Mfg Co.	Envelopes and patterns	"	part
869	" 8	"	Harrington & Oullette	Cigars	"	full
870	" 8	"	W. H. Biddlecombe	Printed matter	"	"
871	" 8	"	The Detroit Ideal Paint Co.	Paints	"	"
872	" 8	"	Pierson & Hough	Horse collars	"	part
873	" 8	"	Safety Furnace Pipe Co.	Safety furnace pipe	"	full
874	" 9	"	Detroit Electric Soap Co.	Soap	"	"
875	" 9	"	Whitehead & Lewis	Sheet metal, etc.	"	part
876	" 9	"	Wm. Graham Printing Co.	Printed matter	"	full
877	" 11	"	Detroit Block Works	Tackle blocks	"	"
878	" 11	"	Geo. W. Cape Pattern Works	Stave patterns	"	"
879	" 11	"	John McGregor & Sons	Boilers	"	"
880	" 11	"	D. E. Rice	Machinery, etc.	"	"
881	" 11	"	Detroit E'y Co. Power House	Electric power	"	"
882	" 11	"	Detroit Citizens' Street E'y Co.	"	"	"
883	" 15	"	Detroit Cabinet Co.	Furniture	"	"
884	" 15	"	Murphy, Wasy & Co.	Chairs and rockers	"	"
885	" 15	"	John Hill	Carriages and wagons	"	"
886	" 16	"	Anderson Mfg Co.	Carriages and sleighs	"	"
887	" 16	"	Michigan Railway Supply Co.	Railway supplies	"	"
888	" 16	"	Detroit Keg Works	Kege	"	"
889	" 16	"	Day Bath Tub Co.	Bath tubs	"	"
890	" 16	"	Rumsey Mfg Co.	Sleighs and carts	"	"
891	" 17	"	Acme White L'd and C'r W'ks, No. 2	Vernish	"	"
892	" 17	"	American Radiator Co.	Radiators	"	"
893	" 17	"	Russell Wheel and Foundry Co.	Logging cars, etc.	"	"
894	" 17	"	Schwanbeck Bros.	Picture fr's and mould'gs	"	"
895	" 17	"	The Standard Electrical Co.	Electrical appliances	idle	"
896	" 17	"	Craddock Mfg Co.	Stack shingles	run.	part
897	" 17	"	Detroit Vernish Co.	Vernish	"	full
898	" 17	"	Thiry, Feldman & Co.	Dressed lumber	"	"
899	" 18	"	Smith & McDonald	Cut stone	"	"
900	" 18	"	Leland & Faulconer Mfg Co.	Machinery and tools	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary.	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
851	60	60	100	68	14	---	---	1	yes	10	\$2,500	45	yes	yes	yes	yes	no	---	yes	yes	yes	yes	yes
852	60	60	160	71	4	---	---	---	---	10	4,000	45	---	yes	yes	---	---	---	---	---	---	---	---
853	60	60	10	9	1	---	---	---	---	10	400	60	---	yes	yes	---	---	---	---	---	---	no	---
854	60	54	16	9	1	---	3	yes	---	10	300	60	---	---	---	---	---	yes	yes	yes	---	---	---
855	60	---	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
856	60	60	20	9	---	---	---	---	---	10	400	* 30	yes	---	no	no	yes	no	---	yes	yes	yes	---
857	58	58	118	118	2	---	---	---	---	10	4,100	45	---	yes	yes	yes	---	yes	---	yes	no	yes	yes
858	60	---	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
859	60	60	6	4	---	---	---	---	---	10	175	* 30	yes	---	yes	yes	yes	no	---	yes	yes	yes	---
860	60	60	176	138	2	---	1	---	---	10	6,200	* 30	no	---	---	---	---	yes	yes	yes	no	yes	yes
861	60	60	32	20	---	---	---	---	---	10	850	60	---	---	---	---	---	---	---	no	---	---	---
862	60	60	10	10	---	---	---	---	---	10	350	60	---	yes	yes	---	---	---	---	yes	---	---	---
863	54	4	4	2	2	---	---	---	---	9	180	60	---	---	---	---	---	---	---	---	---	---	yes
864	57	57	52	10	40	---	5	no	---	10	1,000	45	---	no	---	---	---	yes	yes	yes	---	---	---
865	60	60	6	4	---	---	---	---	---	10	180	60	---	---	---	---	---	yes	yes	yes	---	---	---
866	60	60	45	34	11	---	2	no	---	10	1,150	* 30	---	yes	yes	yes	---	yes	---	no	---	yes	yes
867	54	54	100	6	24	---	2	---	---	9	450	60	---	---	---	---	---	---	---	yes	---	---	---
868	60	54	8	3	3	---	---	---	---	9	250	60	---	---	---	---	---	---	---	---	---	---	---
869	48	48	12	4	3	---	---	---	---	8	150	60	---	---	---	---	---	---	---	---	---	---	---
870	54	54	6	3	---	---	---	---	---	9	140	60	---	---	---	---	---	---	yes	yes	---	---	---
871	60	60	12	6	2	---	---	---	---	10	850	60	---	yes	---	---	---	yes	---	---	---	---	yes
872	6	48	26	7	1	---	---	---	---	10	275	* 30	---	no	---	---	---	---	---	---	---	---	---
873	60	60	16	10	---	---	---	---	---	10	500	* 30	---	---	---	---	---	---	---	---	---	---	---
874	60	60	20	4	---	---	---	---	---	10	250	60	---	yes	---	---	---	---	---	---	---	---	---
875	60	54	35	30	---	---	---	---	---	10	1,500	* 30	---	---	---	---	---	---	---	---	---	---	---
876	57	57	30	25	---	---	1	---	---	9	850	60	---	---	---	---	---	---	---	---	---	---	---
877	60	60	10	8	---	---	---	---	---	10	300	* 30	---	---	---	---	---	---	---	---	---	---	---
878	60	60	50	20	---	---	---	---	---	10	1,200	* 30	---	no	no	---	---	yes	---	---	---	---	---
879	60	60	20	8	---	---	1	no	---	10	300	60	---	yes	yes	---	---	---	---	---	---	---	---
880	60	60	16	6	---	---	---	---	---	10	250	* 30	---	---	---	---	---	---	---	---	---	---	---
881	84	84	20	12	---	---	---	---	---	10	800	60	---	---	---	---	---	---	---	---	---	---	---
882	54	84	15	15	---	---	---	---	---	10	900	60	---	---	---	---	---	---	---	---	---	---	---
883	60	60	75	60	---	---	1	no	---	10	4,000	45	---	yes	---	---	---	yes	---	---	yes	---	---
884	58	58	400	312	68	---	16	---	---	10	11,500	45	---	---	---	---	---	---	---	---	---	---	yes
885	60	60	6	4	---	---	---	---	---	10	200	60	no	---	no	no	---	---	---	---	no	---	---
886	60	60	75	70	5	---	---	---	---	10	2,500	45	yes	no	yes	yes	---	---	no	no	---	yes	yes
887	60	60	60	51	1	---	---	---	---	10	1,800	* 30	---	---	---	---	---	---	yes	yes	---	---	---
888	60	60	15	9	1	---	---	---	---	10	350	* 30	---	---	yes	yes	---	---	---	---	---	---	---
889	60	60	10	6	---	---	---	---	---	10	275	* 30	---	no	no	no	---	yes	---	no	yes	---	yes
890	60	60	35	34	1	---	---	---	---	10	1,500	45	---	no	yes	yes	---	yes	---	no	yes	---	yes
891	60	60	7	6	---	---	---	---	---	10	280	60	---	---	---	---	---	---	---	yes	no	---	---
892	60	60	300	300	---	---	1	no	---	10	2,600	* 35	---	yes	---	---	---	yes	---	no	---	yes	yes
893	60	60	250	149	---	---	---	---	---	10	4,700	* 30	---	---	---	---	---	---	---	---	---	---	---
894	60	60	45	42	3	---	2	no	---	10	1,400	* 30	---	---	---	---	---	---	---	---	yes	---	---
895	60	---	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
896	60	50	50	44	1	---	10	yes	---	10	1,250	45	yes	---	yes	yes	yes	no	---	yes	no	yes	yes
897	60	60	15	13	1	---	---	---	---	10	550	60	---	no	---	---	---	---	---	yes	no	---	---
898	60	6	24	7	---	---	1	no	---	10	280	* 30	---	---	---	---	---	---	---	---	---	---	---
899	54	54	10	10	---	---	---	---	---	9	550	60	---	---	---	---	---	---	---	---	---	---	---
900	60	60	150	69	1	---	---	---	---	10	3,000	45	---	yes	yes	yes	---	yes	yes	yes	yes	yes	yes

* Permit given by inspector.

Inspection book No. 19.

TABLE No. 1.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
901	Oct. 18	Detroit	C. D. Widman & Co.	Mirrors, furniture, etc.	run.	full
902	" 18	"	Huebner Screen Door Co.	Screen doors	"	"
903	" 18	"	Philip Drinkaus & Co.	Picture frames & moulds	"	"
904	" 21	"	Am. Radiator Co., Michigan Plant	Radiators	"	"
905	" 21	"	Detroit M'fg and Novelty Co.	Woven wire beds	"	"
906	" 21	"	Harcus & Lange	Building material	"	"
907	" 21	"	Aerts, Meyers & Co.	Furniture	"	part
908	" 22	"	Michigan Peninsular Car Co.	Car wheels and castings	"	full
909	" 22	"	Michigan Peninsular Car Co.	Freight cars	"	"
910	" 23	"	Schilling Corset Co.	Corsets	"	"
911	" 23	"	Pemberthy Injector Co.	Injectors and brass goods	"	"
912	" 23	"	F. A. Hubel	Capenles	"	"
913	" 24	"	Michigan Lubricator Co.	Lubricators & brass goods	"	"
914	" 24	"	Deoxy Fly Paper Co.	Fly paper	"	"
915	" 24	"	Standard Pearl Button Co.	Buttons	"	"
916	" 24	"	Lanhoff Roller Mills	Flour and feed	"	"
917	" 24	"	A. Poeselins & Co.	Furniture	"	part
918	" 25	"	H. George & Son	Building material	"	full
919	" 25	"	S. Hols.	Bakery goods	"	"
920	" 25	"	Krentler Bros.	Shoe lasts	"	"
921	" 25	"	George Zink	Clothing	"	"
922	" 25	"	Eagle Paper Box Co.	Paper boxes	"	"
923	" 25	"	The Reinhold Machine Co.	Machinery	"	"
924	" 26	"	J. Michels & Co.	Wood work'g machinery	"	"
925	" 26	"	Hayes File Co.	Files	"	"
926	" 28	"	The McRae & Roberts Co.	Steam brass goods	"	"
927	" 28	"	Helienberg & Liebig	Machinery	"	"
928	" 28	"	Chas. Flach	Church furniture	"	"
929	" 28	"	Pfandler Vacuum Fermentat'n Co.	Glass lined tanks	"	"
930	" 28	"	Detroit Safe Co.	Safes	"	"
931	" 29	"	Wm. Eby & Son	Sash, doors, etc.	"	"
932	" 29	"	Detroit R'y Co. Car Department	Repairing cars	"	"
933	" 29	"	Williams Bros. & Charbonneau	Vinegar, pickles & jelly	"	"
934	" 29	"	National Pin Co.	Pins	"	"
935	" 29	"	J. D. Scovel	Building material	"	"
936	" 29	"	E. G. Dalley & Co.	Jellies, fruits and catsups	"	"
937	" 30	"	Detroit Bridge and Iron Works	Iron bridges	"	"
938	" 30	"	Detroit Cash Register Co., L't'd.	Cash registers	"	"
939	" 30	"	Detroit Tobacco Co.	Cigars	"	"
940	" 30	"	John Phillips & Co.	Show cases	"	"
941	" 30	"	Detroit Saw Works	Saws	"	part
942	" 30	"	Standard Gas Fixture Co.	Gas fixtures	"	full
943	" 31	"	Veneer Package Manufact'g Co.	Wooden ware	"	"
944	" 31	"	Geo. F. Doemling	Furniture	"	"
945	Nov. 1	"	Boydell Bros., No. 1	Paints and putty	"	"
946	" 1	"	Boydell Bros., No. 2	Paints and colors	"	"
947	" 1	"	Anderson Cycle and Man'g Co.	Bicycles	"	"
948	" 1	"	E. F. Lee Glass Works	Ornamental glass	"	"
949	" 1	"	A. Neubronner	Carriages	"	"
950	" 1	"	DeCraupet Iron Co.	Iron Works	"	"

THIRD ANNUAL REPORT.

47

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shafters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
901	30	60	140	118	12	1	16	no	10	\$3,000	50	yes	---	yes	yes	yes	no	---	yes	no	yes	yes	
902	30	60	20	12	7	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	
903	30	60	20	7	1	---	---	---	10	250	60	---	---	yes	yes	---	---	---	---	---	---	---	
904	30	60	394	398	1	---	3	no	10	14,000	*30	---	no	---	---	---	---	---	---	---	---	---	
905	30	60	20	10	---	---	---	---	10	350	*30	---	---	no	no	---	---	---	---	---	---	---	
906	54	54	100	58	1	---	---	---	9	1,500	60	---	---	---	---	---	---	yes	---	---	yes	---	
907	8	54	60	55	---	---	2	no	10	2,000	60	---	yes	---	---	---	---	---	---	---	---	---	
908	30	60	200	200	---	---	---	---	10	6,000	*30	---	---	yes	yes	---	---	---	---	---	no	---	
909	30	60	1003	1003	---	---	30	no	10	35,000	*30	---	---	---	---	---	---	---	---	---	no	yes	
910	30	60	225	25	200	---	4	yes	10	5,000	45	---	yes	no	no	---	yes	---	yes	yes	no	yes	
911	30	60	75	68	2	---	1	no	10	3,300	45	---	---	yes	yes	---	---	---	---	---	---	---	
912	8	58	20	8	142	---	---	---	10	4,200	60	---	---	---	---	---	---	---	---	---	---	---	
913	30	60	80	48	2	---	---	---	10	8,000	*30	---	no	---	---	---	---	---	---	---	---	---	
914	30	60	25	9	---	---	---	---	10	400	*40	---	---	---	---	---	---	---	---	---	---	---	
915	54	54	750	720	---	---	---	---	9	10,000	*30	---	yes	---	---	---	yes	---	---	no	yes	---	
916	30	60	3	3	---	---	---	---	10	150	60	---	---	no	no	---	---	---	---	yes	no	---	
917	30	54	25	21	---	---	---	---	10	1,000	60	---	---	yes	yes	---	---	---	---	---	yes	---	
918	54	54	300	65	---	---	2	no	9	3,500	60	---	---	yes	---	---	---	---	---	---	---	---	
919	54	54	5	5	---	---	---	---	9	180	60	---	---	---	---	---	---	---	---	---	no	---	
920	30	60	22	22	---	---	1	---	10	1,100	*30	---	---	---	---	---	---	yes	yes	yes	---	---	
921	30	60	12	3	7	1	2	no	10	300	60	---	---	---	---	---	---	---	---	---	---	yes	
922	30	60	35	6	16	1	3	yes	10	600	*30	yes	---	---	---	---	---	yes	---	---	---	---	
923	30	60	18	12	---	---	---	---	10	450	*30	---	---	---	---	---	---	---	---	---	---	---	
924	30	60	20	18	---	---	---	---	10	675	*30	---	---	---	---	---	---	---	---	---	---	---	
925	30	60	16	6	---	---	---	---	10	250	*30	---	---	---	---	---	---	---	---	---	---	---	
926	57	57	85	78	7	---	---	---	9	3,900	*30	---	---	---	---	---	---	yes	---	---	yes	yes	
927	30	60	5	4	---	---	---	---	10	190	*30	---	---	---	---	---	---	---	---	---	no	---	
928	30	60	50	12	---	---	---	---	10	400	*30	---	---	yes	yes	---	---	yes	---	---	---	---	
929	30	60	60	20	---	---	---	---	10	1,900	50	---	---	---	---	---	---	---	---	---	---	---	
930	30	60	150	75	---	---	---	---	10	2,750	50	---	yes	yes	yes	---	yes	---	---	---	---	---	
931	54	54	20	13	---	---	1	no	9	550	60	---	---	no	no	---	---	---	---	no	---	---	
932	30	60	20	20	---	---	---	---	10	1,000	*40	---	---	---	---	---	---	---	---	yes	---	---	
933	30	60	150	77	35	---	8	no	10	1,900	*30	---	yes	yes	yes	---	yes	---	---	---	---	yes	
934	55	55	88	19	69	1	5	---	10	2,000	*30	---	---	---	---	---	---	---	---	---	---	---	
935	54	54	9	9	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	
936	30	60	120	20	55	---	1	yes	10	950	*30	no	no	yes	yes	---	---	---	---	no	---	yes	
937	30	60	310	169	---	---	---	---	10	8,000	*30	yes	---	---	---	---	yes	---	---	---	---	---	
938	30	60	30	24	---	---	1	no	10	900	*30	---	---	---	---	---	---	---	---	yes	yes	---	
939	30	60	20	4	10	---	4	---	10	230	*40	yes	yes	yes	yes	---	yes	yes	yes	no	---	yes	
940	30	60	40	37	1	---	---	---	10	1,400	*30	---	---	no	no	---	yes	yes	yes	---	---	---	
941	30	54	20	4	---	---	---	---	10	200	*30	---	yes	---	---	---	---	---	---	no	yes	---	
942	30	60	6	4	---	---	1	no	10	175	*30	---	---	yes	yes	---	---	---	---	no	no	---	
943	54	54	8	4	---	---	---	---	10	150	*0	---	yes	---	---	---	---	---	---	no	---	---	
944	30	60	10	6	---	---	---	---	10	250	*30	---	---	no	no	---	yes	---	---	yes	---	---	
945	30	60	18	16	---	---	---	---	10	1,600	60	---	no	yes	yes	---	---	---	---	---	---	---	
946	30	60	14	14	---	---	---	---	10	1,400	60	---	---	---	---	---	---	---	---	---	---	---	
947	30	60	50	24	1	---	---	---	10	1,100	*40	---	---	---	---	---	---	---	---	---	---	yes	
948	30	60	10	10	---	---	---	---	10	450	*30	---	---	---	---	---	---	---	---	---	---	---	
949	30	60	6	4	---	---	---	---	10	190	*30	---	---	no	no	---	---	---	---	---	---	---	
950	30	60	12	8	---	---	---	---	10	300	*30	---	---	---	---	---	---	yes	yes	---	---	---	

† Only short handed for two weeks; ordinarily full capacity.

* Permit given by inspector.

Inspection book No. 20.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
951	Nov. 2	Detroit	Whittingham & Croft	Brass goods	run.	full
952	" 2	"	L. J. Wohllich	Metal specialties	"	"
953	" 2	"	Pudrith & Candler	Boxing	"	"
954	" 5	"	W. J. White & Co.	Sample color cards	"	"
955	" 5	"	W. C. Heath Printing Co.	Job printing	"	"
956	" 5	"	Voelkner & Reinke	Wood and metal patterns	"	"
957	" 6	"	C. B. Seitz	Wood and ivory turning	"	"
958	" 6	"	Michigan Cigar Box Co.	Cigar boxes	"	"
959	" 6	"	Wagner & Ernewein	Tinware	"	"
960	" 6	"	Star Cigar Mfg Co.	Cigars	"	"
961	" 7	"	Hunter & Scheuren	Job printing	"	"
962	" 7	"	Koch & Allmand	Carriages	"	"
963	" 7	"	Delta Lumber Co.	Lumber and timber	"	"
964	" 7	"	W. P. Holiday	Paper boxes	"	"
965	" 8	"	J. C. Cobb	Stone	idle	"
966	" 8	"	John Malcho	Horse collars	run.	full
967	" 8	"	Clark Novelty Mfg Co.	Pillow sham holders	"	"
968	" 8	"	Detroit Cornice and Slate Co.	Cornices and roofing	"	"
969	" 11	"	McIntosh & Withers	Cut stone	"	"
970	" 11	"	Western Newspaper Union	Ready print and plates	"	"
971	" 11	"	Theut & Lutz	Carriages	"	"
972	" 11	"	A. W. Beckmeyer & Co.	Furs	"	"
973	" 11	"	W. S. Figgins	Cut Stone	"	"
974	" 12	"	Gray, Toynton & Fox	Candy	"	"
975	" 12	"	U. S. Baking Co.	Crackers and biscuit	"	"
976	" 13	"	Vinton & Co.	Buildings, etc.	"	"
977	" 13	"	Detroit Electric Light and P'r Co.	Electric light and power	"	"
978	" 13	"	J. R. & J. C. Wilson Carriage Co.	Carriages and sleighs	"	"
979	" 14	"	J. H. A. Haberkorn	Buildings, etc.	"	"
980	" 14	"	Decker Mfg Co.	Metal specialties	"	part
981	" 14	"	Fulton Iron and Engine Works	Engines and elevators	"	full
982	" 15	"	Jas. Flower, Bro. & Co.	Valves and hydrants	"	"
983	" 15	"	Commercial Milling Co.	Flour and feed	"	"
984	" 15	"	Commercial Milling Co.	Corn meal and feed	"	"
985	" 15	"	John J. Bagley & Co.	Tobacco	"	"
986	" 15	"	Detroit Lithographic Co.	Lithographing	"	"
987	" 18	"	J. C. Sullivan & Co.	Cigars	"	"
988	" 18	"	Detroit Cigar Mfg Co.	"	"	"
989	" 18	"	Schober Print'g and Stationery Co.	Book and job printing	"	"
990	" 18	"	Banner Cigar Mfg Co.	Cigars	"	"
991	" 18	"	E. Choep & Sons	Wagons and trucks	"	"
992	" 18	"	Schulenburg Mfg Co.	Billiard tables	"	"
993	" 19	"	Michigan Steam Laundry	Laundry work	"	"
994	" 19	"	Banner Tobacco Co.	Tobacco	"	"
995	" 19	Delray	Michigan Carbon Works	Fertilizer and gine	"	"
996	" 20	"	Dwight Lumber Co.	Flooring, ceiling, etc.	"	"
997	" 20	Detroit	Peninsular Broom Co.	Brooms	"	"
998	" 20	"	Detroit White Lead Works	Paint, putty and lead	"	"
999	" 20	"	Philip Freese	Cigars	"	"
1000	" 21	"	D. M. Ferry & Co.	Sort and clean seeds	"	"

District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
951	60	60	12	8	---	---	---	---	10	\$250	*30	yes	---	yes	yes	yes	no	---	yes	yes	no	yes	---
952	59	59	6	4	---	---	---	---	9	160	*30	---	---	---	---	---	---	---	---	---	---	---	---
953	54	54	10	6	---	---	---	---	9	250	*30	---	---	---	---	---	---	---	---	---	---	---	---
954	57	57	10	4	---	---	---	---	10	200	*30	---	---	---	---	---	---	---	---	---	yes	no	---
955	54	54	6	6	---	---	---	---	9	240	*30	yes	---	---	---	---	---	---	yes	yes	no	no	no
956	60	60	30	11	1	---	---	---	10	375	*30	---	---	---	---	---	---	---	---	---	---	yes	---
957	60	60	4	4	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---
958	54	54	40	20	15	---	1	no	10	950	60	yes	yes	yes	yes	---	---	---	---	---	yes	yes	
959	60	60	6	8	1	---	---	---	10	175	60	---	---	---	---	---	---	---	---	---	yes	no	---
960	48	48	185	121	24	---	17	yes	8	1,200	*30	yes	yes	yes	yes	---	yes	---	---	---	---	---	
961	54	54	4	4	---	---	---	---	9	200	60	---	---	---	---	---	---	---	---	---	---	---	---
962	60	60	12	5	---	---	---	---	10	225	45	---	---	---	yes	---	---	---	---	---	---	---	---
963	60	60	100	100	---	---	---	---	10	4,500	*30	yes	yes	yes	---	---	yes	yes	yes	---	---	---	
964	60	60	250	45	185	2	35	no	10	3,300	*30	yes	---	---	---	---	---	---	yes	---	---	---	
965	60	60	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
966	60	60	14	12	---	---	---	---	10	500	*30	yes	---	yes	yes	yes	no	---	yes	yes	no	yes	
967	60	60	20	7	1	---	2	yes	10	300	*30	---	---	---	---	---	---	yes	---	---	---	---	
968	60	60	30	14	---	---	---	---	10	650	*30	no	---	---	---	---	---	---	---	---	---	---	
969	54	54	20	10	---	---	---	---	9	550	60	---	---	---	---	---	---	---	---	---	---	---	
970	58	58	22	20	2	---	---	---	9	1,100	60	no	yes	yes	yes	---	---	yes	yes	yes	---	---	
971	60	60	20	14	---	---	---	---	10	500	45	---	yes	---	---	---	---	---	---	---	---	---	
972	48	48	24	10	14	---	---	---	8	800	*30	---	---	---	---	---	---	---	---	---	---	yes	
973	54	54	25	10	---	---	---	---	9	570	60	---	---	---	---	---	---	---	---	---	---	---	
974	60	60	150	82	68	---	2	yes	10	3,300	60	---	yes	yes	yes	---	---	yes	---	---	---	yes	
975	54	54	80	45	20	---	---	---	9	4,800	60	---	yes	yes	yes	---	---	yes	---	no	---	---	
976	54	54	240	184	---	---	---	---	9	7,000	*30	---	---	no	no	---	---	---	---	yes	yes	---	
977	72	72	68	60	---	---	---	---	10	1,800	60	---	---	yes	yes	---	---	---	---	---	no	---	
978	60	60	50	30	---	---	---	---	10	1,200	*30	---	---	no	no	---	yes	---	---	---	---	---	
979	54	54	50	24	---	---	---	---	9	1,000	*30	---	---	yes	yes	---	---	---	---	---	---	---	
980	60	60	43	10	1	---	---	---	10	700	---	no	no	no	no	---	no	---	---	---	---	yes	
981	60	60	120	60	---	---	---	---	10	3,000	45	---	yes	yes	yes	---	---	---	---	---	yes	---	
982	60	60	100	52	---	---	---	---	10	1,900	*30	---	---	---	---	---	---	---	---	---	no	---	
983	72	72	18	18	---	---	---	---	10	700	60	no	---	---	---	---	---	yes	---	---	no	---	
984	72	72	28	26	2	---	1	no	10	900	60	---	---	---	---	---	---	---	---	no	---	yes	
985	55	55	200	50	125	2	3	---	10	5,000	60	---	---	---	---	---	---	---	---	---	---	---	
986	55	55	40	20	---	---	---	---	9	1,200	60	yes	---	---	---	---	---	---	---	yes	---	---	
987	48	48	50	24	6	---	---	---	8	1,450	60	---	---	---	---	---	---	---	---	---	---	yes	
988	50	50	170	10	70	---	1	yes	9	2,300	60	---	---	---	---	---	---	---	---	---	---	---	
989	54	54	30	15	10	---	---	---	9	900	60	---	---	---	---	---	---	yes	yes	---	---	---	
990	44	44	400	94	47	---	29	yes	8	6,000	60	---	---	---	---	---	---	---	---	---	---	---	
991	60	60	20	20	---	---	---	---	10	800	*30	---	---	---	---	---	---	---	yes	yes	yes	---	
992	60	60	6	6	---	---	---	---	10	350	60	---	---	no	no	---	---	---	---	yes	no	---	
993	54	54	40	10	30	---	---	---	9	1,100	*30	---	yes	yes	yes	---	---	---	yes	yes	---	yes	
994	55	55	120	41	61	---	1	yes	10	4,500	*30	no	---	---	---	---	---	---	yes	yes	---	yes	
995	60	60	250	228	22	---	3	no	10	7,500	*30	---	---	no	no	---	---	---	---	no	yes	---	
996	60	60	200	200	---	---	7	---	10	6,300	*30	---	---	yes	yes	---	---	---	---	---	---	---	
997	60	60	28	15	---	---	1	yes	10	500	*30	---	---	---	---	---	---	---	yes	no	---	---	
998	60	60	75	58	12	---	---	---	10	3,100	60	no	---	---	---	---	yes	---	no	---	---	yes	
999	48	48	5	3	---	---	---	---	8	130	60	---	---	---	---	---	---	---	---	---	---	---	
1000	60	60	845	159	541	---	---	---	10	14,500	60	yes	---	---	---	---	yes	yes	yes	yes	---	yes	

* Permit given by inspector.

Inspection book No. 21.

TABLE No. 1.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
1001	Nov. 21	Detroit.	C. W. Herbst	Tailor made goods	run.	full
1002	" 21	"	Stender & Wells	Cigars	"	"
1003	" 21	"	Standard Manufact'g Co.	Ladies' underwear	"	"
1004	" 21	"	Detroit Paper Bag Co.	Paper bags	"	"
1005	" 22	"	Clark Can Co.	Tin cans	"	"
1006	" 22	"	V. Campros	Cut stone	"	"
1007	" 22	"	Detroit Can Co.	Tin cans	"	full
1008	" 22	"	Globe Brass Works	Pumps, etc.	"	part
1009	" 22	"	Arthur Colton	Tools and machinery	"	"
1010	" 25	"	Diamond Match Co.	Matches	"	"
1011	" 25	"	Diamond Match Co., No. 2	"	idle	"
1012	" 25	"	Peninsular Stove Co.	Stoves, furnaces, etc.	run.	part
1013	" 25	"	W. H. Anderson & Son	Tools and supplies	"	"
1014	" 26	"	The Detroit Electro Plating Co.	Nickel and brass plating.	"	"
1015	" 21	"	W. R. Cole Electric & Novelty W'ks	Electric machines	"	"
1016	" 26	"	Wm. Wright & Co.	Furniture, etc.	"	"
1017	" 26	"	David Patterson	Cut stone	"	full
1018	" 26	"	Sutton Manufacturing Co., No. 1	Packing pails and barrels	idle	"
1019	" 27	"	Hargreaves Manufacturing Co.	Picture frames, etc.	run.	full
1020	" 27	"	Brown Bros.	Cigars	"	"
1021	" 27	"	Frederick Stearns & Co.	Pharmacy goods	"	"
1022	" 29	"	John Bornman & Son	Job printing	"	"
1023	" 29	"	Wm. Cornehl Book Bindery	Book binding	"	"
1024	" 29	"	Mich. Elect' type & Stereot. Foundry	Electrotype & stereotype	"	"
1025	" 29	"	The Penins. Print'g and Pub. Co.	Job printing	"	"
1026	" 29	"	The Richmond & Backus Co.	Book binding, etc.	"	part
1027	" 30	"	Menz Capsule Co.	Capsules	"	full
1028	" 30	"	Freund Cigar Co.	Cigars	"	"
1029	" 30	"	Brown Printing Co.	Job printing	"	"
1030	" 30	"	Seely Manufacturing Co.	Perfumes, extracts, etc.	"	"
1031	" 30	"	Alexander Gordon	Cigars	"	part
1032	Dec. 2	"	Peerless Manufacturing Co.	Men's clothing	"	full
1033	" 2	"	Haberkorn & Co.	Tables	"	"
1034	" 3	"	Michigan Horse News	Horseman's Journal	"	"
1035	" 3	"	The Angelus Printing Co.	Job printing	"	"
1036	" 3	"	Wm. Partridge	Book binding	"	"
1037	" 4	"	H. E. Downer	Engravings and stencils	"	"
1038	" 4	"	Charles Macnair	Job printing	"	"
1039	" 4	"	Ryan Bros. Knitting Co.	Hosiery	"	"
1040	" 4	"	The Jefferson Press	Book and job printing	"	"
1041	" 4	"	Farrand, Williams & Clark	Wholesale drugs	"	"
1042	" 4	"	Williams, Davis, Brooks & Co.	"	"	"
1043	" 5	"	Spittsley Bros.	Buildings	"	"
1044	" 5	"	J. D. Candler & Co.	Slate, tin & gravel roof'g	"	"
1045	" 5	"	Detroit Metallic Casket Co.	Caskets	"	"
1046	" 6	"	The Park & McKay Co.	Plumber supplies	"	"
1047	" 6	"	The Grand Steam Laundry	Laundry work	"	"
1048	" 6	"	Parisian Steam Laundry	"	"	part
1049	" 6	"	T. H. Girardin	Shirts	"	full
1050	" 6	"	Johnston Optical Co.	Optical goods	"	"

THIRD ANNUAL REPORT.

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District No. 1.

W. F. Tripp, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
1001	54	54	18	8	5	1	---	---	9	\$500	60	yes	---	yes	yes	yes	no	---	---	---	no	yes	yes
1002	48	48	20	7	---	---	---	---	8	350	60	---	---	---	---	---	---	---	---	---	---	---	---
1003	60	60	185	2	6	---	2	yes	10	1,200	*30	---	yes	---	---	---	---	yes	yes	yes	---	---	yes
1004	60	60	12	2	10	---	---	---	10	350	*30	---	---	---	---	---	---	---	---	---	---	---	---
1005	60	60	75	40	---	---	3	yes	10	1,200	*30	---	---	---	---	---	---	---	yes	yes	---	---	---
1006	54	54	12	12	---	---	---	---	9	600	60	---	---	---	---	---	---	---	---	---	---	---	---
1007	60	48	100	48	---	---	18	yes	10	950	*30	---	yes	yes	yes	---	---	yes	---	---	---	---	---
1008	60	60	20	20	---	---	1	no	10	750	*30	---	---	---	---	---	---	---	---	---	---	---	---
1009	60	60	15	11	1	---	---	---	10	650	*30	---	---	---	---	---	---	yes	---	---	---	---	yes
1010	60	60	584	158	237	---	35	no	10	7,633	*30	---	---	---	---	---	---	---	---	no	---	---	---
1011	60	---	190	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1012	60	54	450	425	---	---	5	no	10	25,000	*30	yes	no	yes	yes	yes	no	yes	yes	yes	yes	yes	---
1013	60	54	20	12	---	---	---	---	10	500	*30	---	---	---	---	---	---	---	---	---	no	---	---
1014	60	54	15	14	---	---	2	no	10	550	*30	---	---	---	---	---	---	---	---	---	---	---	---
1015	60	55	40	6	---	---	---	---	10	450	*30	---	---	---	---	---	---	yes	---	---	yes	---	---
1016	60	54	100	40	---	---	---	---	10	1,800	60	---	yes	---	---	---	---	---	---	---	---	---	---
1017	54	54	20	5	---	---	---	---	9	800	60	---	---	---	---	---	---	---	---	---	no	---	---
1018	60	---	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1019	60	60	150	116	23	---	1	yes	10	6,970	45	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	yes
1020	54	54	650	37	513	---	73	---	9	17,000	60	---	---	---	---	---	---	---	---	---	---	---	---
1021	55	55	300	166	84	---	4	no	10	7,000	45	---	---	---	---	---	---	---	---	no	---	---	---
1022	54	54	44	36	6	---	---	---	9	1,600	60	---	---	---	---	---	---	---	---	yes	---	---	---
1023	54	54	80	8	7	---	---	---	9	400	60	---	---	---	---	---	---	---	---	---	---	---	---
1024	60	60	10	9	---	---	---	---	9	350	60	---	---	---	---	---	---	---	---	---	---	---	---
1025	56	56	40	27	3	---	---	---	9½	1,400	60	---	---	---	---	---	---	---	---	---	---	---	yes
1026	56	43	130	30	10	---	3	---	9½	2,207	60	---	---	---	---	---	---	yes	---	---	---	---	---
1027	60	60	80	20	60	---	7	no	9	1,400	*30	---	---	---	---	---	---	---	---	no	---	---	---
1028	60	60	80	9	1	---	---	---	9	450	60	---	---	---	---	---	---	no	---	---	---	---	---
1029	54	54	4	2	1	---	---	---	9	90	60	---	---	---	---	---	---	yes	yes	yes	---	---	---
1030	54	54	100	80	63	---	1	yes	9	2,555	60	---	yes	yes	yes	---	---	yes	---	---	---	yes	---
1031	54	48	240	35	65	---	---	---	9	2,500	60	---	---	---	---	---	---	---	---	---	---	---	---
1032	54	54	150	90	60	---	1	no	9	4,500	60	---	---	---	---	---	---	yes	no	---	---	---	---
1033	60	60	125	76	---	---	2	---	10	22,000	*30	---	---	---	---	---	---	---	yes	no	---	---	---
1034	54	54	12	8	---	---	---	---	9	325	60	---	---	---	---	---	---	---	---	yes	no	---	---
1035	54	54	6	4	2	---	---	---	9	200	60	---	---	---	---	---	---	---	---	---	---	---	yes
1036	54	54	4	3	1	---	---	---	9	220	60	---	---	---	---	---	---	---	---	---	---	---	---
1037	54	54	10	5	---	---	---	---	9	250	60	---	---	---	---	---	---	---	---	---	---	---	---
1038	54	54	6	4	---	---	---	---	9	200	60	---	---	---	---	---	---	yes	no	---	---	---	---
1039	54	54	40	4	36	---	5	no	9	700	60	---	yes	---	---	---	---	no	no	---	---	yes	---
1040	56	56	80	19	2	---	---	---	9	1,075	60	---	---	---	---	---	---	---	yes	---	---	---	---
1041	60	60	70	68	2	---	---	---	10	4,500	60	---	---	---	---	---	---	yes	---	---	---	---	---
1042	54	54	150	95	30	---	---	---	9½	5,000	60	---	---	---	---	---	---	---	---	---	---	---	---
1043	54	54	110	75	---	---	---	---	10	3,500	*30	---	---	---	---	---	---	---	---	---	yes	---	---
1044	53	53	30	29	1	---	---	---	9	1,000	*30	---	---	---	---	---	---	---	---	---	yes	no	---
1045	60	60	50	28	2	---	---	---	10	1,400	*30	no	no	---	---	---	---	yes	yes	yes	---	---	yes
1046	60	60	25	14	---	---	---	---	10	600	*30	yes	yes	---	---	---	---	no	---	---	---	---	---
1047	60	60	42	13	29	---	3	no	10	1,150	*30	---	---	---	---	---	---	---	---	---	---	---	yes
1048	60	54	130	20	55	---	3	---	10	1,700	*30	---	yes	---	---	---	---	---	---	---	---	---	---
1049	54	54	12	2	4	---	1	---	9	130	*30	---	---	---	---	---	---	---	---	yes	---	---	---
1050	54	54	50	37	13	---	---	---	9	1,900	60	---	yes	---	---	---	---	yes	---	---	---	---	---

* Permit given by inspector.

DEDUCTIONS FROM TABLE NO. 1.

This is the largest manufacturing district in the State, being the entire county of Wayne, which includes the city of Detroit. Manufacturing interests in this city are large and varied. Deputy Inspector Tripp has been energetic, active and faithful. The following list shows the kind of goods, with the number of each, which were manufactured, sold or handled in the factories inspected in this district:

Tobacco	9	Artificial limbs	1
Cigars	78	Window shades	1
Cigar boxes	4	Boxes, pails, tubs, etc.	14
Confectionery	8	Carriages, wagons trucks and sleighs	56
Baked goods	22	Wire and iron goods	10
Beer	29	Asphalt	3
Fruits, jellies, etc.	7	Wood and iron steamboats ..	2
Mineral water	2	Emery wheels	2
Printing establishments ..	43	Wood and ivory turning	4
Book binding	9	Sash, doors and blinds	16
Printers' supplies	3	Picture frames, mouldings, etc.	8
Buttons	3	Lumber, lath, etc.	34
Stoves, ranges, etc.	6	Iron, brass and copper goods ..	29
Sails, tents and awnings ..	3	Roller mill machinery	1
Caskets, etc.	5	Barrels and kegs	8
Clothing	23	Cut stone, marble, etc.	14
Beds and Pillows	1	Boilers, tanks and water pipe ..	3
Umbrellas and parasols ..	3	Marble	5
Caps	5	Carpet cleaning	9
Brushes	7	Rags and iron	13
Soap	9	Saws	2
Laundry work	33	Sleeping cars	1
Upholstering	1	Railway and street cars	6
Furniture	23	Repair cars, locomotives and engines	8
Church and school furniture.	3	Railway supplies	2
Boots, shoes, etc.	7	Dynamos, motors, etc.	5
Clay pipes	2	Electric light, power, etc.	12
Baby carriages and chairs ..	5	Metal and slate roofing	8
Shoe blacking	1	Boot and shoe lasts	3
Hardware supplies	7	Steam boilers	6
Flour and feed	32	Decoy ducks	1
Tackle blocks	2	Hose trucks	1
Hides and wool	3		
Fibre cloth	2		

Pumps	3	Corsets and dress stays	4
Paints, varnishes, etc.	15	Chemical goods and perfumes	20
Mirrors, glass, etc.	5	Ladies' underwear and shirt	
Malt	2	waists	2
Leather belts	2	Cements, crocks and sewer	
Machine supplies	2	pipe	4
Rope and express paper	1	Optical goods	3
Car seals	1	Stamps, stencils and plating	6
Baskets	9	Jewelry	2
Cork screws	1	Clean, repair and dye cloth-	
Brooms	5	ing, etc.	4
Potash	4	Baking powder and ground	
Lime, stone and sand	5	spices	5
Hot water and steam heaters,		Steel and steel springs	1
etc.	2	Harnesses, saddles and horse	
Glue, etc.	2	goods	5
Shirts, collars and cuffs	4	Signs	1
Regalia, etc.	1	Brick and tile	36
Fish	2	Machinery	24
Flavoring extracts	2	Furnaces, radiators and safes	6
Trunks and traveling bags	7	Sanitary and toy goods	1
Grain elevators	7	Engines and castings	13
Blank books	2	Stove patterns	3
Bolts and nuts	1	Meats and provisions	4
Shipsmiths' goods	1	Trucks and wooden ware	2
Gas and gas fixtures	3	Metal, oil, etc.	2
Boats, yachts, etc.	6	Envelopes, paper, paper bags,	
Pig iron	5	etc.	3
Gloves and mittens	4	Buildings, building material,	
Ladders	1	etc.	13
Matresses and frames	1	Sorting paper	1
Cash registers	2	Plumbing, steam fitting, etc.	10
Carriage trimmings	1	Iron bridges	1
Furs, robes, etc.	9	Show cases and billiards	2
Fly paper	1	Closets and sink goods	1
Pins	1	Pillow sham holders	1
Lead pipe and sheet lead	1	Flower pots	1
Bicycles	1	Pianos and organs	2
Tin cans and laterns	3	Water filters and bath tubs	3
Carbonated drinks	2	Saw, feed and cider mill	1
Yeast	1	Cedar blocks, shingles, poles	
Clean and sort silver	1	and posts	3
Stone saw mill	1	Sort and clean seeds	1
Door and window screens	3	Staves, hoops and headings	7
Dental goods	1	Condensed milk, butter, cream	
Matches	2	and cheese	8
Beans, produce, etc.	3	Grease and fertilizers	2
Air guns	2	Knit goods and hosiery	3
Refrigerators	1	Wheels, wheelbarrows, pul-	
Bells	1	leys, etc.	2
Electro-plating, lithograph-		Fanning mills and harrows	2
ing, engraving, etc.	4		
Whole number factories inspected			1,050

FACTORY INSPECTION.

Number factories running	985
Number factories idle	65
Whole number inspected	1,050
Number running overtime.....	2

HOURS OF LABOR PER WEEK.

Number of hours per week when running full time.....	60,403
Number of hours per week as running at present.....	53,539
Loss in hours per week.....	6,864
Average hours per week for each factory when running full time..	57½
Average hours per week for each factory as running at present....	53½

This loss of hours per week when reduced to days means about 686½ days of ten hours each for every week, or a loss for the year of 35,698 days, which is equivalent to 1,373 months of 26 days each. This represents an enormous loss to labor in these factories alone. When computed at \$1.32 for each day, the average these men receive for their labor, the sum amounts to \$47,121.36 yearly.

EMPLOYEES.

Number employed when running full capacity.....	52,706
Number employed at present.....	36,869
Loss as compared when running full capacity.....	15,837

Here again is found a great loss to labor. If these factories were running at full capacity they would employ 15,837 more persons. Computed on an average of \$1.32 each per day and the loss is about \$20,905 daily; \$543,530 monthly, or a yearly loss of \$6,522,360. Taken with the loss by reason of running short time and the sum of \$6,569,481 represents the annual loss to labor in the factories inspected in the district, computed at only \$1.00 per day the loss would still be \$4,992,679 annually.

Number of males employed at present	28,169
Number of females employed at present.....	8,700
Whole number employed at present	36,869
Average number employed for each factory running.....	37½

This denotes that over 76 per cent of the employes are males and a little less than 24 per cent are females. Many had supposed that more than one-quarter of the employes in factories in this district were females, but such is not the case.

Number of places where women are employed..... 390

CHILD LABOR AND MINORS.

Number of places where children over 14 and under 16 years of age are employed 199

Number of places where children under 14 years of age were employed 35

This shows that about 19 per cent of these factories employ children over 14 and under 16 years of age. It is also seen that children under 14 were found employed in a little over 3 per cent of these factories.

Number of males employed between the ages of 14 and 16 years... 600

Number of females employed between the ages of 14 and 16 years. 392

Whole number employed between the ages of 14 and 16 years . 992

Number of children employed under 14 years of age 70

Number of children under 14 years of age ordered discharged 70

As will be seen less than 2½ per cent of these employes are between the ages of 14 and 16 years and that they are employed in 199 factories. It will also be noted that in every place where children under 14 years of age were found employed their discharge was peremptorily ordered.

Number of places where registers are kept and statements filed for children over 14 and under 16 years of age..... 77

Number of places where registers are not kept nor statements filed 111

Number not answering this question..... 11

Whole number of places employing children over 14..... 199

This shows that nearly 39 per cent of the factories that employed children were complying with the law in regard to registers and statements, while about 61 per cent had not so complied and were ordered to do so, it being assumed that the 11 that did not answer had not so complied.

Average hours of work per day required of males under 18 and females under 20 years of age..... 9½

In no place was the law which prohibits over 60 hours per week found to be violated and only one place was found where females under 21 and males under 18 years of age were allowed to clean machinery while in motion.

WAGES.

Number that say that wages have been increased since Jan. 1, 1894	43
Number that say that wages have been reduced since Jan. 1, 1894..	17
Number that say there has been no change since Jan. 1, 1894	925

Whole number factories running..... 985

This does not show any material increase in wages during the year, only a little over 4 per cent reporting an increase, while over $1\frac{1}{2}$ per cent report a decrease. Over 88 per cent say there has been neither increase or decrease. The increase for those that reported an increase averaged a little less than 9 per cent, while the decrease for those that reported a decrease averaged a little more than 9 per cent. It is evident there has been no material change in the price paid the operators of these factories during the year.

Amount of monthly pay roll for 982 factories.....	\$1,234,441 00
Average monthly pay roll for each factory.....	1,307 93
Average monthly pay for each employe	34 97

From this it will be seen that the average wages paid factory employes in this district is \$419.64 annually. It is possible and more than probable that these monthly pay rolls were not always given correctly. Employes in these factories averaged a little over 26 days work for each month.

TIME ALLOWED FOR DINNER.

Number where 60 minutes are allowed	639
Number where 30 minutes are allowed	263
Number where 45 minutes are allowed	83
Number where 50 minutes are allowed	7
Number where 40 minutes are allowed	2
Number where 35 minutes are allowed	1

Whole number factories running..... 985

In every case where less than 45 minutes were allowed, permit was given for shorter time by the inspector.

HOISTING SHAFTS AND ELEVATORS.

Number where hoisting shafts and well holes were properly secured and guarded.....	964
Number where hoisting shafts and well holes were not properly secured and guarded	14
Number where there are no hoisting shafts nor well holes.....	7
Whole number factories running.....	985

Number that have automatic trap doors or gates	238
Number that do not have automatic trap doors nor gates	111
Number that do not need automatic trap doors nor gates.....	636
Whole number factories running	985

STAIRS, DOORS AND FIRE ESCAPES.

Number where stairs are properly guarded and screened.....	716
Number where stairs are not properly guarded and screened	78
Number where guards and screens are not needed.....	191
Whole number factories running	985

Number where doors swing out or slide where practicable.....	984
Number where doors do not swing out or slide where practicable....	1
Whole number factories running	985

Number where doors were locked or bolted	4
Number where doors were not locked or bolted.....	940
Number not answering	41
Whole number running	985

Number where fire escapes are provided.....	578
Number where fire escapes are not provided.....	36
Number where fire escapes are not necessary	371
Whole number factories running	985

MACHINERY.

Number where proper shifters are used for throwing on and off belts	776
Number where proper shifters for throwing belts are not in use....	2
Number where there is no machinery.....	207
Whole number factories running.....	985

Number where vats, pans and machinery were properly guarded...	718
Number where vats, pans and machinery were not properly guarded	60
Number where there are no vats, pans or machinery.....	207
Whole number factories running.....	985

SANITARY.

Number where there are suitable wash rooms and water closets....	973
Number where there are not suitable wash rooms and water closets.	12
Whole number factories running.....	985

Number where there are proper water closets for females.....	370
Number where there are not proper water closets for females.....	20
Number where females are not employed.....	595
Whole number factories inspected.....	985

Number where exhaust fans or dust arresters are provided	95
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There are a number of factories where exhaust fans or dust arresters have been ordered, but are not yet reported as provided. Probably not over 15 per cent of the 985 factories which were running when inspected are in need of such appliances.

REMARKS.

Attention is directed to the table where such information not taken into these deductions may be found. Care has been taken to avoid errors, the figures being those given to the inspector and returned by him to the Labor Bureau.

A report of the changes ordered and the accidents reported follow this, the number designating the factory as will be found in the table.

CHANGES ORDERED DURING THE YEAR

DISTRICT NO. 1.

[The number refers to inspection number in table.]

- No. 3.—Ordered registers kept of children employed under the age of 16.
- No. 4.—Ordered one fire escape.
- No. 21.—Ordered one handrail.
- No. 22.—Ordered registers kept of children employed under the age of 16.
- No. 31.—Ordered one handrail and one railing for stairs.
- No. 32.—Ordered three handrails.
- No. 34.—Ordered three handrails and three railings for stairs.
- No. 37.—Ordered gates on two floors for elevator.
- No. 42.—Ordered register kept for children employed under 16 years of age.
- No. 45.—Ordered one hatchway guarded.
- No. 47.—Ordered gates at elevator on one floor and one handrail.
- No. 50.—Ordered one boy under 14 years of age discharged.
- No. 52.—Ordered gates for elevator on second and third floors.
- No. 67.—Required elevators enclosed and gates put up, and one fire escape.
- No. 69.—One fire escape ordered.
- No. 75.—Ordered two handrails.
- No. 77.—One exhaust fan ordered.
- No. 78.—Ordered handrails on one pair of stairs and railing around same.
- No. 79.—Handrails on one pair of stairs ordered.
- No. 81.—Ordered handrails on two pairs of stairs.
- No. 97.—Ordered registers kept of children employed under the age of 16.
- No. 114.—Ordered obstruction to fire escape removed.

- No. 119.—Required registers kept of children under age of 16 years.
- No. 126.—One fire escape ordered.
- No. 129.—Ordered railings around all stair openings, also one fire escape ordered.
- No. 134.—Ordered two handrails and two railings.
- No. 143.—Three hand rails and three railings ordered.
- No. 160.—Ordered registers kept of all children under the age of 16.
- No. 170.—Ordered guards around one small engine in scrap shop, guards for the gearing on six cutting machines and guards around two iron shears in scrap shop.
- No. 174.—Handrail on one pair of stairs ordered.
- No. 178.—One girl under 14 ordered sent home.
- No. 180.—Ordered one girl under 14 years of age sent home.
- No. 186.—Ordered one set screw guarded and gearing on two machines covered.
- No. 195.—One set screw ordered covered.
- No. 200.—Ordered one fire escape on east end of south building.
- No. 204.—Ordered one ladder on the roof where it may be necessary to get from the third story part to the second.
- No. 220.—Ordered blowers put in polishing room.
- No. 223.—Required register to be kept of all children under 16 years of age.
- No. 230.—One new cable rope for elevator ordered. Sept. 23. Ordered automatic gates for elevator.
- No. 238.—Ordered one gate for small elevator at top floor, and one handrail on store room stairs.
- No. 240.—One set of blowers for polishing room ordered.
- No. 243.—Ordered hatchway enclosed, automatic gates on elevator, two handrails, one fire escape on rear of building, two new closets and two wash rooms.
- No. 250.—Ordered two hand rails on stairs.
- No. 260.—Three boys under 14 years of age ordered sent home, required registers kept of all children under 16 years of age and also ordered one gate, at top floor in the small elevator.
- No. 261.—Automatic gates on two floors ordered.
- No. 263.—Ordered automatic gate for one floor.
- No. 264.—Automatic gate on elevator ordered.

- No. 265.—Too much weight on the third floor; ordered three presses removed to the first floor. All orders complied with May 3.
- No. 270.—One fire escape ordered on rear of building.
- No. 272.—Ordered registers kept of all children under the age of 16 years, one door leading to Atwater street to be unlocked during working hours.
- No. 278.—Required all children registered under the age of 16 years.
- No. 279.—Ordered automatic gate and one fire escape to be placed on front of building.
- No. 280.—Ordered elevator shaft rebuilt, automatic gates on all floors at small elevators; handrail placed on stairs; railing at top of one stairway; new floors in two rooms; new timbers in elevator and new floors for same.
- No. 287.—Elevator enclosed on one side and one gate at first floor ordered.
- No. 288.—Registers required kept of all children under 16 years of age.
- No. 300.—One hand rail for fourth floor ordered and a platform built to reach the fire escape with railing on each side.
- No. 302.—Ordered one ladder to roof as this is the main escape.
- No. 305.—One child under 14 years of age ordered sent home, also one fire escape ordered.
- No. 309.—Ordered one child 11 years of age sent home, and registers kept of all children under 16 years of age.
- No. 310.—Required all children registered under the age of 16.
- No. 311.—Ordered registers kept of all children under 16 years of age.
- No. 312.—Sent one boy home under the age of 14 and ordered registers kept of all children under the age of 16 years.
- No. 313.—Handrail ordered.
- No. 325.—Sent home one child under 14 years of age and required that all children under 16 years of age should be registered.
- No. 327.—Ordered one handrail at top floor.
- No. 328.—Main shaft ordered covered.
- No. 329.—Ordered main pulley in engine room guarded; guard on set screw on main shaft; coupling on main shaft guarded and main shaft covered outside of the engine room.
- No. 331.—Ordered statements kept on file for children under age of 16 years.
- No. 335.—Ordered statements kept on file of children under 16 years of age.
- No. 336.—Three children under 14 years of age ordered sent home.

- No. 340.—Ordered two children under 14 years of age discharged and statements kept on file of all under 16 years of age.
- No. 341.—Sent home two children under the age of 14 years and required all children under the age of 16 years to be registered, and ordered four set screws covered.
- No. 343.—Ordered main shaft covered.
- No. 348.—Ordered main shaft to be covered; one set of gearing guarded and one set screw covered.
- No. 351.—Ordered two handrails and one railing on stairs.
- No. 352.—Two well holes ordered covered.
- No. 354.—Automatic gates on second floor ordered.
- No. 359.—Ordered seven children under the age of 14 years sent home and statements kept on file of all children under the age of 16 years.
- No. 361.—One handrail on third floor ordered.
- No. 362.—Required statements kept on file of all children under the age of 16 years.
- No. 367.—Ordered one handrail on first floor.
- No. 380.—A new closet ordered.
- No. 386.—Sent two boys home under the age of 14 years and required all children under the age of 16 to be registered.
- No. 389.—Ordered one handrail for stairs.
- No. 392.—Ordered one new flight of stairs.
- No. 393.—Two handrails ordered, one new closet and old one repaired.
- No. 396.—Ordered one new closet for females.
- No. 397.—A new closet ordered for females.
- No. 398.—Ordered an automatic gate in new building.
- No. 401.—One fire escape ordered.
- No. 402.—Ordered fire escape repaired and one new closet.
- No. 409.—Two handrails ordered.
- No. 412.—Ordered fire escape opening at top floor cleared.
- No. 413.—Sent home four girls under the age of 14 years; ordered statements kept on file of all under the age of 16 years, and one new closet.
- No. 422.—Required statements kept on file of all children under the age of 14 years, and one set screw covered.

- No. 424.—Gates at hand elevator and one handrail in foundry ordered.
- No. 426.—Ordered a handrail for stairs.
- No. 432.—Ordered guards around cable openings; automatic gates at elevator, and one fire escape.
- No. 439.—One new closet.
- No. 444.—Ordered registers kept of all children under the age of 16 years, and one bridge for fire escape.
- No. 446.—One elevator repaired. Sept. 17. ordered automatic gate for elevator.
- No. 452.—Ordered gates for elevator.
- No. 454.—Handrail and one railing ordered.
- No. 457.—Ordered one hatchway enclosed.
- No. 460.—Sent home one child under 14 years of age and required statements kept on file of all children under the age of 16 years.
- No. 464.—One set screw ordered covered.
- No. 466.—Ordered door cut through partition to fire escape.
- No. 467.—Handrail ordered.
- No. 478.—Ordered drop ladder on fire escape, and fire escape windows on second floor cleared.
- No. 480.—Ordered gates on all floors at elevator openings.
- No. 507.—Automatic gates on elevator ordered.
- No. 511.—One set screw ordered covered.
- No. 513.—Sent home two boys under the age of 14 years and ordered statements kept on file of all children under 16 years of age.
- No. 515.—Ordered four saws provided with loose pulleys.
- No. 516.—One boy under 14 years of age ordered sent home.
- No. 518.—Ordered one handrail.
- No. 525.—Sent home five boys under 14 years of age and ordered registers kept of all under 16 years of age.
- No. 550.—Ordered elevator gates, one handrail and elevator cable.
- No. 558.—Two boys under the age of 14 years ordered home.
- No. 559.—Handrail ordered for stairs.
- No. 561.—Ordered one shaft and three set screws covered.

- No. 562.—Guard on saw ordered.
- No. 575.—Required all set screws covered, building repaired and machinery guarded.
- No. 576.—One handrail ordered.
- No. 577.—Ordered one handrail.
- No. 579.—Handrail and railing ordered.
- No. 583.—Required handrail placed on stairs.
- No. 599.—One railing at top floor ordered.
- No. 601.—Sent one child home under the age of 14 years; ordered gates at elevator in finishing room; handrail for stairs, and a fire escape.
- No. 602.—Automatic gates on elevator ordered.
- No. 606.—One handrail and two railings ordered.
- No. 614.—Ordered registers kept of all children under the age of 16 years.
- No. 619.—Handrail for stairs ordered.
- No. 633.—Closet ordered cleaned.
- No. 642.—Gates at elevators and two handrails ordered.
- No. 645.—Ordered one set screw covered.
- No. 654.—Automatic gates for elevator ordered.
- No. 678.—Handrail ordered and a new closet.
- No. 682.—Another closet ordered.
- No. 687.—Ordered one set screw guarded.
- No. 688.—Required that all children under the age of 16 years should be registered, and ordered one new elevator cable.
- No. 690.—Ordered statements to be kept on file of all children under 16 years of age.
- No. 697.—Required registers to be kept of children under the age of 16 years.
- No. 707.—One handrail ordered.
- No. 712.—Ordered two handrails and two railings.
- No. 714.—Three handrails ordered.
- No. 717.—Ordered two handrails and one railing for stairs.
- No. 722.—Required statements to be kept on file of all children under the age of 16 years.
- No. 726.—Ordered two handrails.

- No. 731.—Two set screws ordered.
- No. 736.—Ordered two shears guarded.
- No. 744.—One handrail and a hatchway ordered enclosed.
- No. 747.—Guards ordered on two set screws.
- No. 759.—Ordered elevator enclosed and automatic gates on elevator.
- No. 751.—Sent home one boy under the age of 14 years, and required registers kept of children under 16 years of age; ordered automatic gate on elevator and closets cleaned and put in order.
- No. 753.—Ordered one hatchway enclosed.
- No. 757.—Six set screws ordered guarded.
- No. 759.—Handrail on stairs ordered.
- No. 764.—Ordered statements kept on file of all children under the age of 16 years.
- No. 766.—Ordered one boy sent home under 14 years of age to *stay*, and nine others to remain at home until certificates are given, and statements kept on file of all children under the age of 16 years.
- No. 780.—Required all children under 16 years of age to be registered.
- No. 781.—One set screw ordered covered.
- No. 782.—Ordered extension of fire escape in rear.
- No. 789.—Guard on set screw ordered.
- No. 790.—Ordered guard on set screw.
- No. 792.—Ordered three girls under 14 years of age discharged, and statements filed with name and age of all children employed under 16 years of age.
- No. 802.—Ordered statements kept on file of all children under the age of 16 years, and all set screws covered.
- No. 808.—Guards to be placed on all set screws.
- No. 809.—Required statements to be kept on file of all children under the age of 16 years, and three set screws guarded.
- No. 810.—Ordered all set screws guarded, and all children under the age of 16 years registered.
- No. 811.—Ordered all set screws guarded.
- No. 812.—Sent home one boy under 14 years of age.
- No. 815.—Two handrails and one railing for stairs ordered. Guard one set screw.
- No. 816.—Ordered registers kept of all children under the age of 16 years.

- No. 818.—Ordered statements kept on file of all children under 16 years of age.
- No. 820.—Required four girls under the age of 14 years sent home, and registers kept of all children under the age of 16 years.
- No. 822.—Ordered gates on west elevator.
- No. 828.—Ordered draught of blowers increased.
- No. 834.—One handrail and one railing ordered.
- No. 840.—Ordered one boy under the age of 14 years sent home, required statements placed on file of all children under the age of 16 years, and guards around fly wheel in engine room.
- No. 841.—Ordered two set screws guarded.
- No. 842.—Sent home one boy under 14 years of age; required registers kept of all children under the age of 16 years; ordered elevator cable repaired and additional blowers.
- No. 843.—Place statements on file of all children under the age of 16 years.
- No. 844.—Guards on all set screws ordered.
- No. 846.—Ordered registers kept on file of all children under 16 years of age.
- No. 850.—Automatic gates at both elevators ordered.
- No. 856.—Two hand rails on stairway ordered.
- No. 860.—Ordered automatic gate for elevator.
- No. 861.—Guards on all set screws ordered.
- No. 864.—Required statements placed on file of all children under the age of 16 years, and automatic gates at elevator.
- No. 866.—Ordered registers kept of all children under 16 years of age, and all set screws guarded. Nov. 15, ordered one automatic gate for elevator.
- No. 867.—Ordered statements kept on file of all children under the age of 16 years.
- No. 872.—Elevator gates ordered repaired.
- No. 873.—Ordered elevator gates repaired.
- No. 878.—Two handrails ordered around stairway on second floor.
- No. 884.—Required registers kept of all children under the age of 16 years.
- No. 855.—One handrail ordered.
- No. 886.—Ordered automatic gates on elevator, shifters on rip saw, guards on five set screws, and one shaft and set screw in upholstering room covered.
- No. 889.—One handrail on stairway ordered.

- No. 890.—Elevator gates ordered repaired, and guards on all set screws.
- No. 892.—Ordered all set screws guarded.
- No. 894.—Ordered statements kept on file of all children under the age of 16 years, and guards on all set screws.
- No. 896.—Ordered statements to be placed on file for two boys, and all set screws guarded.
- No. 897.—Automatic gates for elevator ordered.
- No. 901.—Sent one boy home under 14 years of age, required a register kept of all children under the age of 16 years, and guards on all set screws.
- No. 904.—Ordered registers kept of all children under 16 years of age, and automatic gates for elevator.
- No. 905.—One handrail ordered.
- No. 906.—Ordered two handrails and one railing.
- No. 907.—Four handrails for stairs ordered.
- No. 909.—Ordered statements to be placed on file of all children under 16 years of age, and all set screws guarded.
- No. 910.—Handrail ordered for stairway.
- No. 913.—Ordered automatic gates for elevator, and one set of blowers in polishing room.
- No. 916.—Ordered one handrail, and one railing for stairway.
- No. 918.—Ordered statements kept on file of all children under 16 years of age.
- No. 921.—Sent one girl home under the age of 14 years.
- No. 922.—Required two children under 14 sent home.
- No. 931.—Ordered all children under the age of 16 years registered, two handrails one railing, and five set screws guarded.
- No. 934.—Sent home one girl under the age of 14 years, and required statements placed on file of all children under 16 years of age.
- No. 936.—Automatic gates for both elevators ordered.
- No. 937.—Guards on all set screws ordered.
- No. 938.—Required registers kept of all children under the age of 16 years.
- No. 939.—Ordered statements kept on file of all children under 16 years of age.
- No. 940.—Handrail ordered for stairs.
- No. 941.—Ordered two handrails, and one set screw guarded.

- No. 942.—Required statements placed on file of all children under the age of 16 years.
- No. 943.—Guards on set screws ordered.
- No. 944.—Handrail on stairway ordered.
- No. 949.—One handrail for stairs ordered.
- No. 955.—Ordered closet cleaned and repaired.
- No. 958.—Required registers kept of all children employed under 16 years of age.
- No. 964.—Discharged two girls under the age of 14 years, and required statements placed on file of all employed under 16 years of age.
- No. 970.—Automatic gates for elevator ordered.
- No. 975.—Ordered all set screws guarded.
- No. 978.—Ordered one handrail on stairway.
- No. 980.—Ordered automatic gates for elevator, two handrails and two railings, one fire escape, one ladder to roof, and one opening closed.
- No. 983.—Ordered elevator enclosed on south side.
- No. 984.—Ordered elevator gates repaired, and all set screws guarded.
- No. 985.—Ordered two girls discharged under 14 years of age; statements placed on file of all employed under the age of 16 years; automatic gates for elevator and all set screws guarded.
- No. 992.—One handrail ordered.
- No. 994.—Automatic gates for two elevators ordered.
- No. 995.—Ordered registers kept of all children under 16 years of age; automatic gates for one elevator; three hand rails; guards around one vat; also for pulleys and fly wheel in engine room.
- No. 996.—Automatic gates for elevator, and guards on five set screws ordered.
- No. 998.—Ordered automatic gates for elevator, and all set screws guarded.
- No. 1001.—Required one girl under 14 years of age sent home.
- No. 1008.—Ordered registers kept with names and ages of children employed under 16 years.
- No. 1010.—Required registers kept of all children employed under 16 years of age, and all set screws guarded.
- No. 1012.—Ordered registers kept with names and ages of all children employed under 16 years of age, and automatic gates for elevator.
- No. 1014.—Registers ordered kept of all children employed under the age of 16 years.

- No. 1021.—Ordered registers kept with names and ages of all children employed under 16 years; also four sets of gearing; six set screws and two revolving keys guarded.
- No. 1026.—Required registers kept with names and ages of all children employed under 16 years.
- No. 1027.—Registers ordered kept of all children employed under the age of 16 years and guards for all set screws.
- No. 1028.—Ordered one fire escape.
- No. 1032.—Ordered all children registered under the age of 16 years and all set screws guarded.
- No. 1033.—Required registers kept of all children employed under the age of 16 years.
- No. 1039.—Ordered registers kept with names and ages of all children employed under 16 years; also one fire escape, on front of building and all set screws guarded.
- No. 1040.—One fire escape on front of building ordered.
- No. 1045.—Required new cable for elevator and elevator gearing repaired.
- No. 1046.—Ordered improvements to fire escape.
- No. 1047.—Ordered all children registered under 16 years, and all set screws guarded.
- No. 1048.—Required registers kept with names and ages of all children employed under the age of 16 years and all set screws guarded.

ACCIDENTS REPORTED DURING YEAR.

DISTRICT NO. 1.

[The number refers to inspection number in table.]

- No. 170.—July 12, 1895. Albert Drury, age 22, single, employed as grinder by Detroit Steel & Spring Works, had arm crushed and head injured by the bursting of a grindstone. He received wages and doctor's bill was paid during time disabled.
- No. 170.—July 12, 1895. Frank Goodman, married, employed by Detroit Steel & Spring Works, had skull fractured by the bursting of a grindstone. Wages were paid during time disabled; also doctor's bill and other expenses.
- No. 249.—February 14, 1895. Math Kraus, age 35, married, employed as moulder by Fred Kahl, Detroit, was burned on foot with hot iron. Was disabled 14 days and received no wages while disabled.
- No. 266.—April 20, 1895. John Burns, age 45, married, in the employ of Detroit Dry Dock Co., was burned on face, hands and legs by plug blowing out of cupola. Was disabled 180 days. He received wages in full and all hospital and doctor bills were paid by firm.
- No. 278.—September 19, 1895. John Prauke, age 17, moulder in the employ of Detroit Stove Works, Detroit, had right foot burned by a ladle with hot iron in it being upset and the iron running into his shoe. Was disabled 14 days and did not receive wages while disabled.
- No. 417.—August 14, 1895. J. Pabolowski, age 17, employed as press feeder by Wilton-Smith Printing Co., Detroit, had arm broken by being caught in pulley. Was disabled 60 days; received \$4 per week while disabled and doctor's bill was paid.
- No. 436.—November 6, 1895. Lizzie Tapley, age 20, single, was killed while employed in the chemical works for John Davis & Co., Detroit, by a boiler explosion.
- No. 435.—November 6, 1895. Katie Leonard, age 20, single, was killed while employed in the chemical works for John Davis & Co., Detroit, by a boiler explosion.
- No. 435.—November 6, 1895. Charles Hergert, employed at chemical works for John Davis & Co., Detroit, was injured by a boiler explosion.
- No. 436.—November 6, 1895. Jennie Neubauer, age 16, employed at book binding by G. J. Hiller, Detroit, was killed by a boiler explosion.

- No. 436.—November 6, 1895. Adolph Schrieber, age 18, book binder employed by G. J. Hiller, Detroit, was killed by a boiler explosion.
- No. 436.—November 6, 1895. Bertha Wiedbusch, age 19, single, employed at book binding for G. J. Hiller, Detroit, was killed by a boiler explosion.
- No. 436.—November 6, 1895. Minnie Liese, age 25, single, employed at book binding, was killed by a boiler explosion while at work for G. J. Hiller, Detroit.
- No. 436.—November 6, 1895. John Brutenbecher, age 29, married, employed at book binding for G. J. Hiller, Detroit, was killed by a boiler explosion.
- No. 436.—November 6, 1895. Carrie M. Bower, age 23, single, bookkeeper, employed by G. J. Hiller, Detroit, was killed by a boiler explosion.
- No. 436.—November 6, 1895. Hattie Hiller, age 24, single, employed as forewoman in bindery for G. J. Hiller, was killed by a boiler explosion at Detroit.
- No. 436.—November 6, 1895. John Koerber, age 17, employed at book binding for G. J. Hiller, Detroit, was killed by a boiler explosion.
- No. 436.—November 6, 1895. Annie O'Donohue, single, employed at book binding for G. J. Hiller, Detroit, was injured in face and limbs crushed by a boiler explosion.
- No. 437.—November 6, 1895. Lucy A. Holden, single, employed as stenographer by P. F. Collier & Co., Detroit, was slightly injured by a boiler explosion. Was disabled four days.
- No. 437.—November 6, 1895. Margaret L. Robinson, single, employed by P. F. Collier & Co., Detroit, as stenographer, was slightly injured by a boiler explosion. Was disabled four days.
- No. 437.—November 6, 1895. Joseph A. Beresford, age 35, married, employed as bookkeeper by P. F. Collier & Co., Detroit, was injured by a boiler explosion. Was disabled seven days.
- No. 438.—November 6, 1895. George H. Soule, engraver, employed by H. C. Kohlbrand, Detroit, was killed by a boiler explosion.
- No. 438.—November 6, 1895. Henry Clow Walsh, age 16, employed at engraving for H. C. Kohlbrand, Detroit, was killed by a boiler explosion.
- No. 438.—November 6, 1895. John Bommer, age 16, employed by H. C. Kohlbrand, Detroit, as engraver, was killed by a boiler explosion.
- No. 440.—November 6, 1895. Ernest Perkins, mail clerk for Detroit Journal, was killed by a boiler explosion.
- No. 440.—November 6, 1895. James Ross, age 29, employed at stereotyping for Detroit Journal, was killed by a boiler explosion.
- No. 440.—November 6, 1895. Henry Lariviere, age 19, employed as mailer by Detroit Journal, was killed by a boiler explosion.

- No. 440.—November 6, 1895. John Gardner, employed by Detroit Journal at electrotyping, was killed by a boiler explosion.
- No. 440.—November 6, 1895. Willie Hawes, age 16, employed as mailer, was killed by a boiler explosion while at work for Detroit Journal.
- No. 440.—November 6, 1895. Michael Ward, age 28, employed at stereotyping for Detroit Journal, was killed by a boiler explosion.
- No. 440.—November 6, 1895. George Shaw, age 16, employed as mailer for Detroit Journal, was killed by a boiler explosion.
- No. 440.—November 6, 1895. Cornelius George, employed as foreman in mailing room, was seriously scalded about head by a boiler explosion. Still at hospital December 4, 1895.
- No. 440.—November 6, 1895. Arthur D. Lynch, age 19, employed as stereotyper, for Detroit Journal, was burned on body by boiler explosion. Was disabled 22 days.
- No. 440.—November 6, 1895. Albert Webber, age 22, employed by Detroit Journal as pressman, was scalded on head by boiler explosion. Still at hospital on December 4, 1895.
- No. 442.—November 6, 1895. Herman Miller, age 15, single, in the employ of Calvert Lithograph Co., Detroit, in a boiler explosion was badly cut by flying glass. Was disabled four days.
- No. 494.—November 6, 1895. James Holt, age 15, employed by Speaker Printing Co., Detroit, was badly cut on face in a boiler explosion. Still in hospital November 27, 1895.
- No. 498.—November 6, 1895. Martin Myers, age 40, married, employed as advertising solicitor by Detroit Evening News, was cut on head and neck by a boiler explosion. Was disabled five days and received wages while disabled.
- No. 498.—November 6, 1895. H. G. Foye, aged 35, married, employed by Detroit Evening News as advertising solicitor, while passing along the street was injured by a boiler explosion. Was disabled two weeks and received wages during time disabled.
- No. 500.—April 23, 1895. Jerome Delaire, age 14, employed as book binder for Detroit Free Press, had arm injured by having it caught in belt. Was disabled sixty days. Received no wages during time disabled. Doctor's bill paid by firm.
- No. 512.—December 6, 1895. John Zeiss, age 40, married, ship carpenter in the employ of Detroit Dry Dock Co., had head injured by a plank falling from scaffold.
- No. 561.—May 23, 1895. Jacob Faschinski, age 19, single, was drawing saw dust from Nowlin Bro's, Dearborn, got under saw, raised up and struck head on saw and was killed. He was not an employé of the firm. Burial expenses paid by family.

- No. 600.—May, 1895. George Allen, age 18, single, employed by Clover Condensed Milk Co. in can department, had end of one finger cut off. Was disabled two weeks and received wages during time disabled.
- No. 618.—March 15, 1895. Henry Glenn, age 30, single, employed as machine hand by Rogers Typograph Co., Detroit, lost one finger through carelessness. He received no wages during time disabled.
- No. 656.—June 15, 1895. J. Abbott, age 25, single, employed by West Detroit Chair Co. as machine hand, had two fingers injured. Was disabled two weeks and doctor's bill was paid by company.
- No. 660. March, 1895. Tracy Thomas, age 17, employed as machine hand by Hamilton, Carhartt & Co., Detroit, while putting on a belt had third finger on right hand cut off. Was disabled 20 days; received wages during time disabled, and doctor's bill was paid.
- No. 726.—January 21, 1895. John Colliar, age 42, married, employed as engineer by Brownlee & Co., Ecorse, was killed by a boiler explosion. Burial expenses paid by company.
- No. 728.—November, 1895. John Smith, age 30, married, laborer in the employ of Detroit Sulphite Fibre Co., River Rouge, was bruised about head and chest by blocks of wood falling on him. Not yet recovered.
- No. 730.—March 22, 1895. L. Massett, age 24, married, employed by Sutton Manufacturing Co., River Rouge, as sawyer, lost two fingers on right hand. Was disabled 35 days, and received wages in part and accident insurance
- No. 736.—March 25, 1895. William Owen, age 26, married, in the employ of the Michigan Peninsular Car Co., Detroit, in drawing iron from furnace was burned on arm and about body. Was disabled 14 days and did not receive wages while disabled.
- No. 736.—June, 1895. Fred Skauradzum, age 45, married, employed as machine hand by Michigan Peninsular Car Co., Detroit, had ends of three fingers cut off. Was disabled 21 days and received no wages during time disabled.
- No. 750.—February 7, 1895. Herman Krause, age 35, married, employed by Detroit Gas Co., as brick layer, fell from machine and was fatally injured. Wages paid during time of sickness. Burial expense. paid by company.
- No. 789.—June 25, 1895. Frederick Rosman, age 30, employed by Martin Maier & Co., Detroit, on woodworking machine, had hand and one arm crushed in feed rolls of planer. Was disabled eight weeks. Received no financial aid.
- No. 790.—June, 1895. Katie McGonie, single, employed for Michigan Wire and Iron Works, Detroit, had hand crushed when cleaning machinery while in motion. Was disabled 21 days, and received no wages while disabled.
- No. 802.—August 7, 1895. J. Garnier, age 30, married, carpenter, employed by Griffin Car Wheel Co., Detroit, had ankle cut with adz. Was disabled 41 days. He carried an insurance.

- No. 803.—July 28, 1895. William Keuhl, age 40, married, had both hands injured by an iron splinter, while in the employ of John Brennan & Co., Detroit. Was disabled 21 days. He carried an insurance.
- No. 810.—February 20, 1895. L. Duball, age 20, single, employed as machine hand by J. Woodhams, Detroit, fell on machine and injured his leg. Was disabled 42 days, received wages and doctor's bill during time disabled.
- No. 823.—September 20, 1895. Fred Wendt, age 38, married, employed by Consolidated Rolling Stock Co., Detroit, had fingers crushed. Was disabled six days; did not receive wages while disabled.
- No. 823.—September 1, 1895. Henry Black, age 34, married, employed on trucks for Consolidated Rolling Stock Co., Detroit, had finger split. Was disabled 21 days, and received no wages while disabled.
- No. 828.—August 23, 1895. Charles Buski, age 63, married, employed by Michigan Central Car Shops, Detroit, was killed by a flying stick which struck him in the stomach. Burial expenses paid by family. He carried an insurance.
- No. 847.—July, 1895. George Bather, age 35, married, had finger crushed while employed as machine hand for J. E. Bolles & Co., Detroit. Was disabled 7 days and did not receive wages while disabled.
- No. 884. February 18, 1895. George Cooper, age 25, single, had hand bruised and thumb broken while employed at gauge lathe for Murphy, Wasey & Co., Detroit. Was disabled 36 days, received one-half wages and doctor's and hospital bills were paid.
- No. 884.—May 4, 1895. John Detloff, age 17, machine hand employed by Murphy Wasey & Co., Detroit, had index finger cut. Was disabled one week, and received one-half wages, also doctor and hospital bills paid.
- No. 884.—April 10, 1895. Fred Furgurson, age 20, single, oiler in the employ of Murphy, Wasey & Co., Detroit, had hand cut. Was disabled 7 days, and received one-half wages, also hospital and doctor bills paid.
- No. 884.—April 25, 1895. Thomas Kelpin, age 30, married, laborer employed by Murphy, Wasey & Co., Detroit, had palm of hand badly cut on jointer. Was disabled 31 days, received one-half wages, and doctor and hospital bills paid.
- No. 884.—April 30, 1895. Charles Fuller, age 16, machinist in the employ of the Murphy Wasey & Co., Detroit, had two fingers on right hand cut off. Was disabled 40 days, received one-half wages, also doctor and hospital bills paid.
- No. 889.—July, 1895. J. Kroft, age 20, single, machine hand in the employ of Day Manufacturing Co., Detroit, slipped and cut a foot. Received no wages during time disabled.
- No. 894.—July, 1895. Charles Chartier, age 45, married, sawyer in the employ of Schwanbeck Bros., Detroit, was injured on chest by flying board. Was disabled seven days and received wages in full, also hospital bills paid.

- No. 901.—April 17, 1895. Henry Tiefensee, age 20, single, employed as polisher for C. D. Widman & Co., Detroit, had right hand caught in belt and thumb cut off. Was disabled 40 days and received one-half wages and hospital expenses paid.
- No. 904.—July 26, 1895. A. Brobroski, age 30, married, laborer employed at American Radiator Works, had hip injured. Was disabled 60 days, received wages while disabled. Doctor bill and other bills paid by company.
- No. 909.—March 25, 1895. John Lipper, age 24, married, had nose broken by the breaking of a belt while in the employ of Michigan Peninsular Car Co., Detroit. Was disabled 21 days and received wages while disabled.
- No. 909.—May 24, 1895. Andre Lepinsky, age 46, married, laborer, employed by Peninsular Car Co., Detroit, had arm crushed. Was disabled 28 days, and received wages during time disabled.
- No. 912.—September, 1895. Carl Syvorson, age 35, machinist in the employ of F. A. Hubel, Detroit, had foot injured. Was disabled 21 days, and did not receive wages while disabled.
- No. 930.—December 17, 1894. Andrew Keihm, age 30, married, vault builder employed by Detroit Safe Co., Detroit, ankle badly injured by door falling on it. Was disabled three months, and received wages during time disabled.
- No. 940.—February, 1895. T. Kolinovsky, age 32, married, cabinet maker in the employ of John Phillips & Co., Detroit, slipped and fell on rip saw. Was disabled 28 days, and received wages while disabled. Doctor's bills and other expenses paid by company.
- No. 963.—September 17, 1895. Michael Lorenz, age 26, married, carpenter employed by Delta Lumber Co., Detroit, was killed. Burial expenses paid by wife.
- No. 975.—May 7, 1895. Nellie Heffron, age 18, single, employed for Vail & Crane, Detroit, lost three fingers while making jam. Was disabled 21 days. Company paid all expenses during time disabled.
- No. 994.—April 20, 1895. Tillie Wesley, age 20, single, sorter, employed for Banner Tobacco Co., Detroit, fell down elevator and injured spine. Was disabled 28 days, and received no wages during time disabled.
- No. 996.—June, 1895. John Moran, age 24, single, machine hand in the employ of Dwight Lumber Co., Detroit, was injured through carelessness. Was disabled 14 days, and received no wages during time disabled.
- No. 998.—August, 1895. Willie Woodard, age 17, pressman in the employ of Detroit White Lead Works, Detroit, lost big toe. Was disabled 10 weeks, and received \$5.00 per week during time disabled.
- No. 1008.—May, 1895. Charles Appalt, age 22, single, machine hand employed by Detroit Can Company, lost fore finger. Was disabled seven days. All wages and doctor's bills paid by company.

FACTORY INSPECTION.

- No. 1015.—January, 1895. Name unknown, age 23, single, helper in the employ of W. R. Cole Electro Novelty Works, Detroit, had finger crushed. Was disabled seven days. Received no wages while disabled.
- No. 1016.—August 5, 1895. John Hunt, age 35, married, had arm caught on saw and injured, while in the employ of Wm. Wright Co., Detroit. Was disabled 21 days, and received one-half wages while disabled.
- No. 1019.—August 5, 1895. Thomas Williamson, age 45, married, machine hand employed by Hargraves Manufacturing Co., Detroit, caught arm in elevator cable, and it was injured. Was disabled seven days. Received wages in full while disabled.
- No. 1020.—January 17, 1895. Frank Kerry, age 16, in the employ of Brown Bro's Detroit, as press boy had head injured by falling down elevator. Was disabled 21 days. Doctor's bills and all expenses paid by firm.
- No. 1044.—September 2, 1895. J. Nowdiski, age 18, single, helper in the employ of J. D. Candler & Co., Detroit, fell from wall and was killed. Burial expenses paid by firm.

SECOND DISTRICT.

SUMMARY OF WORK IN SECOND INSPECTION DISTRICT.

OFFICE OF DEPUTY INSPECTOR, }
Charlotte, December 20, 1895. }

HON. CHARLES H. MORSE,
Commissioner of Labor, Lansing, Mich.:

DEAR SIR—In compliance with circular letter from you, bearing date November 30, 1895, I hereby submit a report of my work as Deputy Inspector of the 2d inspection district of Michigan. I also give in tabulated form a brief review of the work done by me since the factory inspection law went into effect, September 1, 1893, followed by an explanation of the work in 1893.

Table showing factory inspection in second district since September 1, 1893.

Kinds of changes ordered.	1893.		1894.		1895.	
	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.
Belts ordered guarded.....	286	136	55	39	74	56
Elevators ordered protected.....	54	38	76	45	78	63
Fire escapes ordered.....	4	2	6	4	13	11
Machines ordered guarded.....	107	55	82	67	80	59
Children under fourteen ordered out.....	11	11	17	17	19	19
Exhaust fans ordered.....	4	2	11	7	17	12
Places where statements were ordered.....	4	4	16	16	16	16
Miscellaneous orders made.....	97	41	55	41	31	31
Whole number.....	567	289	318	236	323	267

Whole number of factories inspected in 1893.....	418
Whole number of factories revisited in 1893.....	25
Whole number of factories inspected in 1894.....	284
Whole number of factories revisited in 1894.....	55
Whole number of factories inspected in 1895.....	615
Whole number of factories revisited in 1895.....	136
Whole number of inspections made since September 1, 1893....	1,317
Whole number of revisits since September 1, 1893.....	216
Whole number of changes ordered since 1893.....	1,213
Whole number of orders complied with since 1893.....	792

WORK OF 1893.

When the factory inspection law went into effect, September 1, 1893, the work given me was in various parts of the State, and when the State was regularly divided into districts much of the territory I then visited was in other districts than that assigned me, so that many changes I ordered in 1893, was attended to in 1894 by other inspectors. More of these were in the third district than any other, although some were in the fourth and fifth districts. This accounts for the small per cent of compliance in my report for that year.

WORK IN 1894.

Before commencing the work in 1894 the State was divided into districts, I being assigned to the second district, composed of twenty-two counties in the southern part of the State, the list of which was given in the report for that year. I found business that year in a very depressed condition and changes which required any considerable expense were met with objections by owners and operators, although a general wish to comply with the law seemed to prevail. In some instances extension of time was asked, which was generally given unless the exigencies of the case required immediate attention, in which cases the changes were ordered without unnecessary delay. Extensions were never given only for a limited time. In that year I found many factories idle, where only a partial inspection could be made.

WORK OF 1895.

The work of 1895 commenced earlier and was more thoroughly pushed. I visited the factories in all parts of my district twice and in some instances three times. I found less idle factories, but business by no means in a flourishing condition. I found six places where business had

entirely suspended since 1894. In some instances I found where the management had changed hands, necessitating new orders for changes. In these latter cases the new management assured me that the orders should be promptly complied with.

In the year just closed I have found all classes more conversant with the law and its requirements and operators more ready to comply with its provisions, they realizing that protection for their employes means protection to themselves. Less accidents have occurred during the year and a feeling of safety is more generally felt by all.

During the year I have had but two cases where I have been compelled to prosecute for violation of the law. Mr. J. S. Tuttle, of Niles, for employing children under fourteen years of age, and Mr. Percy D. Dwight, owner of the building occupied by Smalley Brothers at Jackson, for failing to provide automatic protection for elevator. In both cases the parties plead guilty, paid fines and complied with the law. All other cases, where friction seemed imminent, have been happily adjusted and the law vindicated.

The second district, embracing, as it does, twenty-two counties, the entire southern part of the State, is a very important one. Several of the most important manufacturing centers are within its jurisdiction. It requires watchful care, constant travel and diligent work on the part of the inspector. He is brought in contact with all classes of men, many of whom were at first unfavorable to the law. It is a pleasure to report that in a large measure this prejudice has been removed. There are very few manufacturers now who do not readily concede that the law is necessary and is the outgrowth of a demand for better protection for employes, not only in regard to the safety of machinery, but as to child labor and sanitary regulations.

Improvements and changes are often voluntarily made, making the duties of the inspector more pleasant and creating a kindly feeling with employes. The outlook for the work in the coming year is auspicious and bids fair to be more extensive than for the past.

As to the work done by me, I would respectfully refer you to the inspection books as returned. I have endeavored to make them plain and comprehensive, to do my work thorough and in such a manner as to merit your approval.

All of which is respectfully submitted.

GEO. E. GUNN,
Deputy Inspector.

Inspection book No. 1.

TABLE No. 2.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
1	Apr. 3	Lansing	E. Bement & Sons.....	Stoves and farm impl'nts	run.	full
2	" 4	"	Howell Mfg Co.....	Spokes and electricity	"	"
3	" 4	"	S. E. Jarvis.....	Machinery	"	"
4	" 4	"	Michigan Wheel Co.....	Wheels	"	"
5	" 4	"	Robert Smith & Co.....	Printed matter	"	"
6	" 4	"	H. H. Freedman.....	Cigars	"	"
7	" 4	"	Capitol City Cigar Co.....	"	"	"
8	" 4	"	Queen Bee Cigar Co.....	"	"	"
9	" 8	"	Lansing Lumber Co.....	Sash, doors and blinds	"	part
10	" 8	"	Lansing Iron and Engine Works..	Engines and machinery	"	"
11	" 8	"	Maud S. Windmill and Pump Co...	Pumps and windmills	"	full
12	" 8	"	Michigan Condensed Milk Co.....	Condensed milk	"	"
13	" 8	"	Lansing Wagon Works.....	Wagons	"	"
14	" 8	"	Lansing Wheel Barrow Works.....	Wheelbarrows	"	"
15	" 9	"	Star Laundry.....	Laundry work	"	"
16	" 9	"	Michigan Knitting Co.....	Knit goods	"	"
17	" 9	"	Thompson & Van Buren.....	Printed matter	"	"
18	" 9	"	Lentz & Distin.....	Paper boxes	"	"
19	" 9	"	F. Thoman & Bro.....	Flour and feed	"	"
20	" 9	"	Hugh Lyon & Co.....	Window display, etc.	"	"
21	" 9	"	Genesee Fruit Co.....	Vinegar	"	"
22	" 9	"	Potter Mfg Co.....	Furniture	"	"
23	" 11	"	Clark & Co.....	Carriages	"	"
24	" 11	"	P. F. Olds & Son.....	Engines	"	"
25	" 11	"	Anderson Road Cart Co.....	Road carts and wagons	"	part
26	" 11	"	Crystal Creamery Co.....	Creameries	"	full
27	" 11	"	Hall Lumber Co.....	Dressed lumber	"	"
28	" 11	"	Lansing Pants and Overall Co.....	Pants and overalls	"	"
29	" 11	"	Hammell Cigar Co.....	Cigars	"	"
30	" 15	"	State Republican.....	Printed matter	"	"
31	" 15	"	Lansing Journal.....	Newspapers	"	"
32	" 15	"	Michigan Stave and Barrel Co.....	Staves and barrels	"	"
33	" 15	"	Lansing Spoke Co.....	Spokes	"	"
34	" 15	"	Capitol Lumber Co.....	Dressed lumber	"	"
35	" 15	"	W. B. Stone & Co.....	Sash, doors and blinds	"	"
36	" 16	"	D. A. Reynolds.....	Job printing	"	part
37	" 16	"	Pearl Mills.....	Flour and feed	"	full
38	" 16	"	North Lansing Milling Co.....	"	idle	"
39	" 16	"	A. Foerster Brewery.....	Beer	run.	full
40	" 16	"	Van Gorder's Laundry.....	Laundry work	"	"
41	" 16	"	Shearer's Laundry.....	"	"	"
42	" 16	"	Krue & Haviland.....	Crackers	"	"
43	" 16	"	U. S. Baking Co. (Lansing Branch)	Bakery goods	"	"
44	" 17	"	Lansing Confectionary Co.....	Confectionery	"	"
45	" 18	"	Lansing Artificial Stone Works...	Artificial stone	"	"
46	" 22	Vermontville.	F. P. Town.....	Lumber	"	"
47	" 22	"	Fuller Bros.....	"	"	"
48	" 22	Nashville.....	Lentz Bros.....	Tables	"	"
49	" 22	"	H. R. Dickinson.....	Flour and feed	"	"
50	" 22	"	U. B. Brown.....	Evaporated fruit	idle	"

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1905.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 15 and females under 21 years of age?	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or aside?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
1	60	60	525	517	8		4	yes	10	\$19,500	60	yes	yes	yes	yes	yes	no	no	yes	no	yes	yes	yes
2	60	60	40	40			1	no	10	700	60	yes	yes	yes	yes	yes	no	no	yes	no	yes	yes	yes
3	60	60	40	40					10	200	60	yes	yes	yes	yes	yes	no	no	yes	no	yes	yes	yes
4	60	60	162	71	21				10	4,800	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
5	60	60	5	2					8	130	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
6	60	60	5	2					8	325	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
7	60	60	40	40					10	200	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
8	60	60	12	10					10	1,500	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
9	60	60	100	50					9	1,700	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
10	60	60	100	50					10	2,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
11	60	60	40	40					10	2,700	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
12	60	60	120	40	40				10	3,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
13	60	60	85	38					10	2,800	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
14	60	60	120	120	8			no	10	825	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
15	60	60	15	7					10	225	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
16	60	60	75	3	12				10	525	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
17	60	60	27	10	2				10	125	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
18	60	60	20	10	4			no	11	550	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
19	60	60	13	8					10	125	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
20	60	60	10	8					10	550	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
21	60	60	40	4					10	2,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
22	60	60	100	75				no	10	2,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
23	60	60	100	65					10	2,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
24	60	60	20	20					10	1,000	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
25	60	60	20	20					10	120	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
26	60	60	45	13	2				10	600	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
27	60	60	12	12					10	450	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
28	60	60	100	12	37				10	2,100	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
29	60	60	80	40	20				8	2,150	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
30	60	60	55	50	5				10	2,600	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
31	60	60	25	19	1				10	750	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
32	60	60	20	20					10	800	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
33	60	60	20	20					10	700	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
34	60	60	15	15					10	500	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
35	60	60	20	16					10	125	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
36	60	60	2	2					10	250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
37	60	60	14	5					11	350	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
38	60	60	10	10					10	100	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
39	60	60	11	2	8				10	425	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
40	60	60	8	4	2				10	275	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
41	60	60	8	4	2				10	325	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
42	60	60	12	9	4				10	900	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
43	60	60	7	4	3				10	250	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
44	60	60	15	6	6				10	800	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
45	60	60	6	6					10	300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
46	60	60	7	7					10	210	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
47	60	60	45	45					10	1,300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
48	60	60	7	7					10	300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
49	60	60	40	40					10	1,300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
50	60	60	40	40					10	1,300	60	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

Inspection book No. 2.

TABLE No. 2.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
51	Apr. 23	Nashville	George Ball	Sash, doors and blinds	run.	full
52	" 23	Hastings	Ed. Powers	Cigars	"	"
53	" 23	"	Hastings Engine and Iron Works	Engines and machinery	"	"
54	" 23	"	Hastings Milling Co.	Flour and feed	"	"
55	" 23	"	Hastings Table Co.	Tables	"	"
56	" 23	"	J. L. Wilkins	Lumber	"	"
57	" 23	"	Hastings Wool Boot Co.	Wool boots	"	"
58	" 24	"	Michigan Whip Co.	Whips	"	"
59	" 24	"	Hastings Furniture Co.	Furniture	idle	"
60	" 24	"	Bently, Tomlinson & Rider	Lawn hose reels	run.	full
61	" 24	Middleville	Charles Annison	Lumber	"	"
62	" 25	"	T. D. French & Son	Flour and feed	"	"
63	" 25	"	Keeler Brass Co.	Brass trimmings	"	"
64	" 25	G'd Junction	Gospel Trumpet Publishing Co.	Printed matter	"	"
65	" 25	Pine Grove	D. O. Everest & Co.	Farm implements	"	"
66	" 26	Gobleville	J. L. Clement	Lumber	idle	"
67	" 26	South Haven	George H. Myhan & Co.	Sole leather	run.	part
68	" 26	"	H. W. Sweet	Flour and feed	"	full
69	" 26	"	Worthington & Reed	Dressed lumber	"	"
70	" 26	"	J. C. Randall	"	"	"
71	" 27	"	R. T. Pierce & Co.	Baskets	"	part
72	" 27	"	Winkel Bros.	Dressed lumber	"	full
73	" 27	"	South Haven Foundry	Stoves	"	"
74	" 27	"	A. M. Prouty	Staves and heading	idle	"
75	" 27	Bangor	B. C. Nyman	Lumber	run.	full
76	" 29	"	P. McKellar	Wool mattresses	"	"
77	" 29	Hartford	A. H. Youngs & Co.	Heading	"	"
78	" 29	"	Chicago Last and Die Co.	Lasts	"	"
79	" 29	"	Charles Leach	Lumber	idle	"
80	" 29	"	E. J. Walker & Son	"	run.	full
81	" 30	Watervliet	Syms & Dudley	All kinds fine paper	"	"
82	May 1	St. Joseph	St. Joe and B. H. Electric Light Co.	Electricity	"	"
83	" 1	"	St. Joseph Iron Works	Machinery	"	"
84	" 1	"	W. A. Preston	Sash and doors	"	"
85	" 1	"	St. Joseph Wood Works	Wood work	"	"
86	" 1	"	Cooper, Wells & Co.	Knit goods	"	"
87	" 1	"	Wells, Higman & Co.	Fruit packages	"	"
88	" 2	Benton H'rb'r	Spencer, Barnes & Stuart	Furniture	"	"
89	" 2	"	Buss Machine Works	Machinery	"	"
90	" 2	"	J. B. Graves & Co.	Dressed lumber	"	"
91	" 2	"	Wm. Ehrle	Cigars	"	"
92	" 2	"	Colby, Hinkley & Co.	Fruit packages	"	"
93	" 2	"	A. Baeschke & Bros.	Carriages	"	"
94	" 3	"	George B. Thayer & Co.	Fruit packages	"	"
95	" 3	"	John Spink	Lumber	idle	"
96	" 3	"	John Robinson	Vinegar	run.	full
97	" 3	"	E. W. Heath	Boats	"	"
98	" 3	"	Squire Dingee & Co.	Vinegar and pickles	"	"
99	" 3	"	Daily Palladium	Newspaper	"	"
100	" 4	"	The News Co.	"	"	"

THIRD ANNUAL REPORT.

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District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week, at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
51	60	60	5	4					10	\$130	60	yes		yes	yes	yes	no		yes	yes		yes	
52	48	48	6	1	2				10	450	60	yes		yes	yes			yes	yes				yes
53	60	60	15	2					10	150	60			yes	yes				yes	yes			
54	72	72	3						10	3,900	60		yes					no			yes		
55	60	60	50	50					10		60												
56	60	60	15	8					10	325	60								no				
57	60	60	75	55	20				10	2,200	60								yes				yes
58	60	60	40	16	9				10	400	60												
59	60	60	135						10		60												
60	60	60	27	27					10	1,000	60	yes	no	yes	yes	yes	no		yes	yes	no	yes	
61	60	60	6	6					10	215	60									no			
62	*	*	8	8					12	450	60		yes	yes	yes					yes			
63	60	60	50	33	2				10	1,300	50									yes			yes
64	60	60	34	16					10	5	60												
65	60	60	40	25	16				10	675	60												
66	60								10		60	yes			yes	yes	yes	no		yes	yes	yes	
67	60	30	20	10					10	380	60				yes	yes	yes	no		yes	yes	yes	
68	60	60	4	4					10	200	60												
69	60	60	10	10					10	400	60												
70	60	60	6	3					10	85	60												
71	60	54	150	50	15				9	1,775	60		no	yes	yes					no	no		yes
72	60	60	5	5					10	150	60									yes			
73	60	60	10	10					10	550	60				yes	yes				yes			
74	60		30						10		60												
75	60	60	6	6					10	155	60	yes			yes	yes	yes	no		yes	yes	yes	
76	60	60	8	2					10	55	60												
77	60	60	7	7					10	210	60									no			
78	60	60	8	8					10	425	60									yes			
79	60		7						10		60												
80	60	60	7	7					10	200	60	yes					yes	no		yes	yes	yes	
81	*	*	115	75	40				10	3,250	60		yes	yes	yes								yes
82	+	+	8	8					12	392	60									no			
83	60	60	34	29					10	1,400	60									yes			
84	60	60	30	19					10	850	60			yes	yes								
85	60	60	4	2					10	75	60												
86	60	60	200	70	130		18	no	10	5,100	50			yes	yes								yes
87	60	60	25	6	4				10	300	60		no										
88	60	60	167	165	1				10	6,000	60	yes	yes						yes	yes	yes		
89	60	60	125	45					10	1,800	60												
90	60	60	35	25					10	1,000	60						yes						
91	48	48	5	2					8	80	60			yes	yes								
92	60	60	90	40					10	1,700	60	yes	no						yes	yes			
93	60	60	12	10					10	303	60												
94	60	60	70	34	6		1		10	1,200	60								yes	yes			yes
95	60		8	7					10		60												
96	60	60	4						10	120	60	yes				yes	no		yes	yes		yes	
97	60	60	43	35					10	1,500	60			yes	yes								
98	60	60	25	10					10	350	60												
99	60	60	15	10	5				10	540	60		no										yes
100	60	60	27	7					10	290	60												

* 144 hours; run night and day.

† Piling lumber.

‡ 168 hours; running all the time.

§ Employees work for board and clothing.

Inspection book No. 3.

TABLE No. 2.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
101	May 4	St. Joseph...	Evening Press...	Newspaper...	run.	full
102	" 4	New Buffalo...	C. & W. M. R'y Repair Shop...	Repairing cars...	"	"
103	" 6	Three Oaks...	Warren Featherbone Co.	Featherbone...	"	"
104	" 6	"	Warren Featherbone Whip Co.	Whips...	"	"
105	" 6	Buchanan...	Zinc Collar Pad Co.	Collar pads...	"	"
106	" 6	"	M. S. Mead...	Lumber...	"	"
107	" 6	"	Buchanan Cabinet Co.	Sideboards and desks...	"	"
108	" 6	"	Hatch Cutlery Co.	Cutlery...	"	"
109	" 7	"	Rough Bros.	Wagons...	idle	"
110	" 7	"	Kompass & Stoll...	Furniture...	run.	full
111	" 7	"	Lee & Porter...	Axles...	"	"
112	" 7	Niles...	Niles Milling Co.	Flour and feed...	"	"
113	" 7	"	Earl Storms & Co.	Chairs...	"	"
114	" 8	"	W. M. Sixbey...	Dressed lumber...	idle	"
115	" 8	"	Merrell, Stephens M'g Co.	Cattle guards...	run.	full
116	" 8	"	J. S. Tuttle...	Leather suspender tips...	"	"
117	" 8	"	Niles Wool Boot Co.	Wool boots...	idle	"
118	" 8	"	S. & G. Lacey...	Lumber and barrels...	"	"
119	" 9	"	Ohio Paper Co.	Paper...	run.	full
120	" 9	"	Niles Paper Co.	"	"	"
121	" 9	"	Michigan Wood Pulp Co.	"	"	"
122	" 9	"	Skalla Furniture Co.	Furniture...	"	"
123	" 9	"	Michigan Wire Shovel Co.	Shovels...	"	"
124	" 10	"	H. A. Thomas & Co.	Corsets...	"	"
125	" 10	Dowagiac...	Round Oak Stove Works...	Stoves...	"	"
126	" 10	"	Dowagiac Chair Co.	Chairs...	"	"
127	" 10	"	Fred Headrick...	Lumber...	idle	"
128	" 11	"	Colby Milling Co.	Flour and feed...	run.	full
129	" 11	"	Dowagiac M'g Co.	Grain drills...	"	"
130	" 12	Kalamazoo...	Kalamazoo Pants and Overall Co.	Pants and overalls...	"	"
131	" 13	"	Ihling Bros. & Everard...	Blank books...	"	"
132	" 14	"	Henderson-Ames Co.	Band and military supplies...	"	"
133	" 14	"	Kalamazoo B. B. Velocipede Co.	Railroad velocipedes...	"	"
134	" 14	"	Lillies Cigar Co.	Cigars...	"	"
135	" 14	"	Benjamin Cleenewerok...	"	"	"
136	" 14	"	Globe Casket M'g Co.	Caskets...	"	"
137	" 15	"	Phelps & Biglow Windmill Co.	Windmills...	"	"
138	" 15	"	S. Salomon & Co.	Pants and overalls...	"	"
139	" 15	"	Harrow Spring Co.	Harrow springs...	"	"
140	" 15	"	Hicks Carriage Co.	Carriages...	"	"
141	" 15	"	Kalamazoo Top Co.	Carriage tops...	"	"
142	" 15	"	Smith & Pomeroy...	Windmills...	"	"
143	" 16	"	Dewing & Son...	Sash, doors and blinds...	"	"
144	" 16	"	Merrill Milling Co.	Flour and feed...	"	"
145	" 16	"	Clarage & Son...	Machinery...	"	"
146	" 16	"	Alpha Bending and Carriage Co.	Carriage woodwork...	"	"
147	" 16	"	Featherbone Corset Co.	Corsets...	"	"
148	" 16	"	W. M. E. Hill & Co.	Saw mill machinery...	"	part
149	" 17	"	Cornell & Co.	Carriages...	"	full
150	" 17	"	Clark & Dutton...	Boilers and machinery...	"	"

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
101	60	60	9	9	---	---	---	---	10	---	80	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
102	60	60	7	7	---	---	---	---	10	\$280	60	---	---	yes	yes	---	---	---	---	---	---	---	---
103	60	60	275	100	175	2	15	no	10	5,000	60	---	---	yes	yes	---	---	---	---	no	---	yes	---
104	60	60	40	10	2	---	---	---	10	500	60	---	no	---	---	---	---	---	---	---	---	---	---
105	60	60	18	3	---	---	---	---	10	120	60	---	---	---	---	---	---	---	---	yes	---	---	---
106	60	60	5	5	---	---	---	---	10	225	80	---	---	---	---	---	---	---	---	---	---	---	---
107	60	60	50	25	---	---	---	---	10	850	60	---	---	yes	yes	---	---	---	---	---	---	---	---
108	60	60	100	93	7	---	---	---	10	3,000	60	---	---	---	---	---	---	---	---	no	no	---	yes
109	60	60	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
110	60	60	27	27	---	---	---	---	10	600	60	yes	no	yes	yes	yes	no	---	yes	yes	yes	yes	yes
111	60	60	40	40	---	---	---	---	10	2,500	130	---	---	---	---	---	---	---	---	---	---	---	---
112	*	*	12	12	---	---	---	---	10	385	60	---	---	yes	yes	---	---	---	---	---	---	---	---
113	60	60	15	11	---	---	---	---	10	890	60	---	---	---	---	---	---	---	---	---	---	---	---
114	60	60	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
115	60	60	7	7	---	---	---	---	10	200	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
116	60	60	44	34	10	1	17	yes	10	600	60	---	no	no	---	---	---	---	---	---	---	---	yes
117	60	---	78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
118	60	---	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
119	*	*	70	70	---	---	---	---	12	1,600	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
120	*	*	65	50	15	---	---	---	12	1,943	60	---	yes	---	---	---	---	---	---	---	---	yes	yes
121	*	*	115	95	20	---	---	---	12	2,500	60	---	---	---	---	---	---	---	---	---	---	---	---
122	60	60	14	14	---	---	---	---	10	---	60	---	---	---	---	---	---	---	---	---	---	---	---
123	60	60	12	12	---	---	---	---	10	335	60	---	---	---	---	---	---	---	---	---	---	---	---
124	54	54	12	---	6	---	---	---	9	112	60	---	---	---	---	---	---	---	---	---	---	---	yes
125	60	60	250	248	2	---	---	---	10	10,260	60	---	---	---	---	---	---	---	---	no	yes	---	---
126	60	60	16	16	---	---	---	---	10	510	60	---	no	yes	yes	---	---	---	---	yes	---	---	---
127	60	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
128	60	---	22	22	---	---	---	---	10	900	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
129	60	60	68	68	---	---	---	---	10	3,100	60	---	---	---	---	---	---	---	---	---	yes	yes	yes
130	60	60	125	10	115	---	---	---	10	2,800	60	---	no	no	yes	---	---	---	---	---	---	---	yes
131	60	60	100	62	21	---	2	no	10	2,600	60	---	yes	yes	---	---	yes	---	---	yes	---	---	---
132	60	60	128	45	83	---	---	---	10	8,700	60	---	---	---	---	---	---	---	---	yes	---	---	---
133	60	60	50	25	1	---	---	---	10	950	60	---	---	---	---	---	---	---	---	---	yes	---	---
134	48	48	30	25	---	---	---	---	8	1,250	60	---	yes	---	---	---	---	---	---	---	---	---	---
135	48	48	7	5	---	---	---	---	8	210	60	---	---	---	---	---	---	---	---	---	---	---	---
136	60	60	110	95	15	---	---	---	10	4,300	60	yes	no	yes	yes	---	---	---	yes	yes	yes	---	yes
137	60	60	30	30	---	---	---	---	10	1,200	60	---	---	---	---	---	---	---	---	---	---	---	---
138	60	60	70	6	54	---	---	---	10	1,400	60	---	---	---	---	---	---	---	---	yes	---	---	yes
139	60	60	100	40	---	---	---	---	10	2,000	60	---	---	---	---	---	---	---	---	---	no	---	---
140	60	60	35	35	---	---	---	---	10	1,000	60	---	---	yes	yes	---	---	---	---	---	---	---	---
141	60	+	7	3	---	---	---	---	10	120	60	---	---	---	---	---	---	---	yes	yes	---	---	---
142	60	60	17	17	---	---	---	---	10	800	60	---	---	---	---	---	---	---	---	---	---	---	---
143	60	60	170	188	---	---	6	yes	10	3,878	60	---	yes	yes	yes	---	---	---	---	no	yes	---	---
144	68	68	6	6	---	---	---	---	11	325	60	---	---	---	---	---	---	---	---	---	---	---	---
145	60	60	42	42	---	---	---	---	10	1,470	60	---	---	---	---	---	---	---	---	yes	no	---	---
146	60	60	38	38	---	---	---	---	10	1,000	60	---	---	---	---	---	---	---	---	---	---	---	---
147	60	60	240	25	215	---	---	---	10	5,000	60	---	no	yes	---	---	---	yes	---	---	yes	---	yes
148	60	54	35	35	---	---	---	---	9	1,700	60	---	---	---	---	---	---	---	---	---	---	---	---
149	60	60	7	7	---	---	---	---	10	325	60	---	---	---	---	---	---	---	---	---	---	---	---
150	60	60	40	40	---	---	---	---	10	1,340	60	yes	---	---	---	---	---	---	yes	yes	---	---	---

* 144 hours, running night and day.
 † 60 hours, running overtime.
 § 132 hours; running night and day.

‡ Permit given by inspector.

Inspection book No. 4.

TABLE No. 2.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
151	May 17	Kalamazoo	Upjohn Pill and Grannle Co.	Pills and granules	run.	full
152	" 17	"	Kalamazoo Spring and Axle Co.	Springs and axles	"	"
153	" 17	"	North & Coon	Sash, doors and blinds	"	"
154	" 18	"	Lull & Skinner Co.	Carriages	"	"
155	" 18	"	C. H. Dutton Co.	Engines and boilers	"	"
156	" 18	"	City Electric Light Co.	Electric lights	"	"
157	" 23	Sunfield	Sunfield Manufacturing Co.	Wood work	"	"
158	" 23	Mulliken	H. Jones	Lumber	"	"
159	" 23	Grand Ledge	Grand Ledge Sewer Pipe Co.	Sewer pipe and tile	"	"
160	" 23	"	West Bros.	Sash, doors and blinds	"	"
161	" 23	"	Grand Ledge Chair Co.	Chairs	"	part
162	" 23	"	H. R. Streeter	Machinery	"	"
163	" 24	Charlotte	Curtis & Son	Furniture	"	"
164	" 24	"	Chas. Bennet Furniture Co.	"	"	"
165	" 24	"	Dolson & Son	Carriages	"	"
166	" 24	"	H. D. Cove	Sash and doors	"	"
167	" 25	"	Charlotte Manufacturing Co.	Furniture	"	"
168	" 25	"	Benton Manufacturing Co.	Express wagons	"	"
169	" 27	Kalamazoo	American Playing Card Co.	Playing cards	"	"
170	" 27	"	Wm. H. Gibson	Elevators	"	"
171	" 27	"	J. P. Windoes	Whip lashes	"	"
172	" 27	"	Kalamazoo Sled Co.	Hand sleds	"	"
173	" 28	"	Van Bochove & Sons Manuf'g Co.	Sash, doors and blinds	"	"
174	" 28	"	American Carriage Co.	Carriages	"	"
175	" 28	"	Williams Manufacturing Co.	Water tanks	"	"
176	" 28	"	Kalamazoo Wagon Co.	Carriages	"	"
177	" 28	"	Kalamazoo Casket Co.	Caskets	"	"
178	" 28	"	Michigan Buggy Co.	Buggy wood work	"	"
179	" 29	"	Kalamazoo Foundry and Mach. Co.	Machinery	"	"
180	" 29	"	St. John Plow Works	Plows	"	"
181	" 29	"	American Washboard Co.	Washboards	"	"
182	" 29	"	Cone Coupler Carriage Co.	Carriages	"	"
183	" 29	"	Standard Wheel Co.	Buggy wheels	"	"
184	" 29	"	Michigan Buggy Co.	Buggies	"	"
185	" 31	"	Model Casket Co.	Caskets	"	"
186	" 31	"	Winans Buggy Co.	Carriages	"	"
187	" 31	"	Wileon Foundry and Forge Co.	Castings	"	"
188	" 31	"	Botsford Paper Mill Co.	Book paper	"	"
189	" 31	"	Hanselman Candy Co.	Candy	"	"
190	" 31	"	Banner Laundry	Laundry work	"	"
191	" 31	"	Kalamazoo Paper Co.	Book paper	"	"
192	" 31	"	Burrell & Son	Wagons	"	"
193	June 1	"	Bemington, Ford & Co.	General wood work	"	"
194	" 1	"	Kalamazoo Daily News	Newspaper	"	"
195	" 1	"	Kalamazoo Publishing Co.	Job printing	"	"
196	" 1	"	Kalamazoo Telegraph	Newspaper	"	"
197	" 1	"	Humphrey M'fg and Plating Co.	Brass goods	"	"
198	" 1	"	Strait Manufacturing Co.	"	"	"
199	" 1	"	Kalamazoo Gazette	Newspaper	"	"
200	" 1	"	E. Matthews	Sheet iron goods	"	"

THIRD ANNUAL REPORT.

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District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vate, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
151	57	57	85	15	20				10	\$1,800	60	yes	no	yes	yes	yes	no	no	yes	yes	yes	yes	
152	80	80	99	99			2	yes	10	3,400	50								yes	no			
153	80	80	18	18					10	800	60									no	yes		
154	80	80	110	93	5				10	4,000	60									yes		yes	
155	80	80	61	61					10	2,000	45												
156	*	*	4	4						190	80									no			
157	80	80	10	10					10	350	80								no				
158	80	80	12	12					10	390	80								yes	yes			
159	80	80	50	40					10	60	60		no	yes	yes					no	yes		
160	80	80	4	2					10	65	60									no	yes		
161	80	48	90	40		1	1		8	1,200	60			no				no		yes		yes	
162	80	80	5	5					10	160	80									no			
163	80	80	80	77	1				10	2,154	60	yes	yes	yes	yes					yes	yes	yes	
164	80	80	60	60					10	1,950	80												
165	80	†	100	100					10	3,450	60												
166	80	80	5	3					10	125	60												
167	80	80	90	90					10	2,500	60										yes		
168	80	80	45	45		1	no		10	1,040	60			yes	yes					no	no		
169	59	59	140	22	84		14	yes	9	3,000	60		yes					no		yes		yes	
170	80	80	8	4					10	175	60									yes			
171	80	80	35	4	8	1	1	no	10	250	60											yes	
172	80	80	50	48	2				10	2,000	45		yes		no				no	no	no		
173	80	80	15	15					10	800	60			yes	yes								
174	80	80	80	80					10	8,000	60		no						yes	yes			
175	80	80	18	18					10	780	60												
176	80	80	125	125					10	4,700	60		no								yes		
177	80	80	42	40	2				10	1,800	60										yes		
178	80	80	40	40					10	1,400	60		no								yes		
179	80	80	30	30					10	1,300	60												
180	80	80	30	30					10	1,300	60			yes	yes					yes			
181	80	80	95	40					10	1,400	45		yes								yes		
182	80	80	35	33	2				10	1,800	60							no				yes	
183	80	80	250	250					10	8,000	60				yes					yes	yes		
184	80	80	210	200	10				10	9,300	60							no				yes	
185	80	80	18	17	1				10	900	60												
186	80	80	4	4					10	150	60		no										
187	80	80	10	4					10	180	60												
188	†	†	85	65	20				10	2,400	60		yes	yes	yes			yes				yes	
189	80	80	15	6	4				10	225	80		no							yes			
190	80	80	14	4	7				10	330	45												
191	†	†	110	57	53		4		10	4,000	60		yes	yes	yes					no			
192	80	80	20	20					10	820	60										yes		
193	80	80	21	21					10	850	30		no										
194	80	80	24	22	2				10	1,150	60									yes		yes	
195	80	80	78	72	6				10	2,180	60												
196	80	80	25	23	2				10	1,489	60												
197	80	80	24	24					10	1,100	60										yes		
198	80	80	25	25					10	1,000	60												
199	80	80	18	18					10	950	60			yes	yes								
200	80	80	25	5					10	280	60		no	no									

* 152 hours; running night and day.
† 75 hours; running overtime.
‡ 144 hours; running night and day.

§ Permit given by inspector.

Inspection book No. 5.

TABLE No. 2.—CONTINUED.—

No. given factory for 1905.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
201	June 3	Battle Creek..	Battle Creek Steam Pump Co.	Steam pumps	run.	full
202	" 3	"	L. B. Clapp	Sash, doors and blinds	"	"
203	" 3	"	Wm. Gage & Sons	Printing and engraving	"	"
204	" 3	"	A. M. Minty	Cigars	"	"
205	" 3	"	J. Farrell	"	"	"
206	" 4	"	Metal Back Album Co.	Albums	"	part
207	" 4	"	Michigan Scoop Co.	Scoops	"	full
208	" 4	"	Eureka Loom Co.	Carpet looms	"	"
209	" 4	"	Union Steam Pump Co.	Steam pumps	"	"
210	" 4	"	Mason Rathburn & Co.	Dressed lumber	"	"
211	" 5	"	M. M. Lewis	General woodwork	"	"
212	" 5	"	Sun Hong Kee	Laundry work	"	"
213	" 5	"	John Brannan & Co.	Boilers	"	part
214	" 5	"	Battle Creek Implement Co.	Wagons	"	full
215	" 5	"	Angell Bros.	General woodwork	"	"
216	" 5	"	Knight & Beach	Sash, doors and blinds	"	"
217	" 6	"	Sanitarium Health Food Co.	Baked goods	"	"
218	" 6	"	A. B. Henry	Furniture	"	"
219	" 6	"	Michigan Foundry Co.	Castings	"	"
220	" 6	"	Advance Thresher Co.	Threshing machines	"	"
221	" 6	"	S. D. A. Pub. Association	Printed matter	"	"
222	" 7	"	J. F. Conway	Brooms	"	"
223	" 7	"	Battle Creek Carriage Co., limited.	Carriages	"	"
224	" 7	"	G. A. Dubois	Sort rags	"	"
225	" 7	"	City Steam Laundry	Laundry work	"	"
226	" 7	"	Nichols & Shepard Co.	Threshing machines	"	part
227	" 7	"	C. & G. T. Machine Shops	Machinery	"	full
228	" 8	"	L. Van Prague	Cigars	"	"
229	" 8	"	Battle Creek Daily Moon	Newspapers	"	"
230	" 10	Marshall	Marshall Casket Co.	Caskets	"	"
231	" 10	"	Royal Cycle Works	Bicycles	"	"
232	" 10	"	Marshall Wagon and Windmill Co.	Wagons and windmills	"	"
233	" 10	"	Page Bros. Buggy Co.	Buggies	"	"
234	" 11	"	Folding Bath Tub Co.	Bath tubs	"	"
235	" 11	"	C. J. & M. K. E. Machine Shop	Machinery	"	part
236	" 11	"	Marshall School Seat Works	School seats	"	"
237	" 11	"	C. H. Smith	Cigars	"	full
238	" 11	"	Marshall Furnace Works	Furnaces	"	"
239	" 12	Albion	Albion Milling Co.	Flour and feed	† idle	"
240	" 12	"	Albion Electric Light Co.	Electricity	run.	full
241	" 12	"	Albion Malleable Iron Works	Malleable castings	"	"
242	" 12	"	Gale Mfg Co.	Plows	† idle	"
243	" 12	"	W. M. Loder	Building material	run.	full
244	" 12	"	F. R. Parmelee	Sash, doors and blinds	idle	"
245	" 12	"	Wolcott Windmill and Tank Co.	Windmills and tanks	"	"
246	" 12	"	Elms Buggy Co.	Buggies	run.	full
247	" 12	"	Thomas J. Furey	Cigars	"	"
248	" 12	Jackson	Holton & Weatherwax	Machinery	"	"
249	" 12	"	Heyer & Sons	Sash, doors and blinds	"	"
250	" 12	"	The Knickerbocker Co.	Mill machinery	"	"

† For repairs.

THIRD ANNUAL REPORT.

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District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1885.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and wall holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
201	60	60	65	65	---	---	---	---	10	\$3,000	60	yes	yes	yes	yes	yes	no	---	yes	yes	yes	yes	---
202	60	60	10	10	---	---	---	---	10	425	60	---	---	---	---	---	---	---	---	---	---	---	---
203	60	60	40	30	10	---	---	---	10	1,600	60	yes	---	---	---	---	---	---	---	---	---	---	yes
204	48	48	25	12	4	---	---	---	8	650	60	---	---	---	---	---	---	---	---	---	---	---	---
205	48	48	9	6	1	---	---	---	8	850	60	---	---	---	---	---	---	---	---	---	---	---	---
206	60	54	25	7	1	---	---	---	9	285	60	yes	yes	---	---	---	---	---	yes	yes	---	---	---
207	60	60	12	3	3	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---
208	60	60	6	5	1	---	---	---	10	290	60	---	---	---	---	---	---	---	---	---	---	---	---
209	60	60	25	24	1	---	---	---	10	900	60	---	---	yes	yes	---	---	---	---	---	---	---	---
210	60	60	14	14	---	---	---	---	10	600	60	---	---	---	---	---	---	---	---	---	---	---	---
211	60	60	6	6	---	---	---	---	10	330	60	---	---	---	---	---	---	---	---	---	---	---	---
212	60	60	4	4	---	---	---	---	10	170	60	---	---	---	---	---	---	---	---	---	---	---	---
213	60	54	30	15	---	---	---	---	9	650	60	---	---	yes	yes	---	---	---	yes	yes	---	---	---
214	60	60	26	26	---	---	---	---	10	780	60	---	---	---	---	---	---	---	---	no	---	---	---
215	60	60	4	2	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	yes	---	---	---
216	60	60	20	5	---	---	---	---	10	240	60	---	yes	---	---	---	---	---	---	---	---	---	---
217	60	60	33	27	6	---	---	---	10	700	60	---	---	---	---	---	---	---	---	---	---	---	---
218	60	60	7	7	---	---	---	---	10	80	60	---	---	no	no	---	---	---	no	no	no	---	yes
219	60	60	100	88	---	---	---	---	10	4,500	60	---	---	---	---	---	---	---	yes	yes	yes	---	yes
220	60	60	303	303	---	---	---	---	10	14,800	60	---	yes	yes	yes	---	---	---	yes	no	---	---	---
221	60	60	325	100	100	---	---	---	10	6,500	60	---	---	---	---	---	---	no	---	yes	---	---	yes
222	60	60	6	6	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	---
223	60	60	19	19	---	---	---	---	10	650	60	yes	---	yes	yes	---	---	---	---	---	---	---	---
224	60	60	25	5	16	---	---	---	10	580	60	---	---	---	---	---	---	---	---	---	---	---	yes
225	60	60	20	4	16	---	---	---	10	550	60	---	---	---	---	---	---	yes	yes	yes	---	---	---
226	60	50	325	325	---	---	---	---	---	1,300	60	---	yes	---	---	---	---	---	---	---	yes	---	---
227	54	54	225	225	---	---	---	---	9	10,542	60	---	---	---	---	---	---	---	---	---	---	---	---
228	48	48	10	3	2	---	---	---	8	250	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
229	60	60	11	8	8	---	---	---	10	488	60	---	---	---	---	---	---	yes	yes	yes	---	---	---
230	60	60	45	25	---	---	---	---	10	1,000	60	---	yes	---	---	---	---	---	yes	yes	yes	---	---
231	60	*	67	67	---	---	---	---	---	2,800	60	---	---	no	---	---	---	---	---	---	---	---	---
232	60	60	20	17	---	---	---	---	10	720	60	---	yes	yes	---	---	---	---	---	no	---	---	---
233	60	60	65	65	---	---	---	---	10	1,668	60	---	---	---	---	---	---	---	---	yes	yes	---	---
234	60	60	25	20	---	---	---	---	10	750	60	---	---	---	---	---	---	---	---	---	---	---	---
235	60	48	94	94	---	---	---	---	10	3,674	60	---	---	---	---	---	---	---	---	---	---	---	---
236	60	54	43	32	---	---	---	---	9	1,100	60	---	no	no	yes	---	---	---	---	---	no	---	---
237	48	48	5	4	1	---	---	---	8	200	60	---	---	yes	---	---	---	---	---	---	---	---	yes
238	60	60	20	20	---	---	---	---	10	900	60	yes	---	---	---	---	---	yes	yes	---	---	---	---
239	+	+	20	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
240	60	60	4	4	---	---	---	---	---	170	60	yes	---	---	---	yes	no	---	yes	no	---	yes	---
241	60	60	100	100	---	---	---	---	10	3,600	60	---	yes	yes	yes	---	---	---	yes	---	---	---	---
242	60	---	225	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
243	60	60	10	10	---	---	---	---	10	400	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
244	60	---	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
245	60	---	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
246	60	60	60	60	---	---	---	---	10	2,300	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
247	48	48	11	11	---	1	1	no	8	440	60	---	---	---	---	---	---	---	---	---	---	---	---
248	60	60	65	49	10	---	---	---	10	2,250	60	yes	yes	---	---	---	---	yes	yes	---	---	---	yes
249	54	54	150	40	---	---	---	---	9	1,600	60	---	no	---	---	---	---	---	---	---	yes	---	---
250	54	54	35	25	---	---	---	---	9	886	60	---	---	---	---	---	---	---	---	no	---	---	---

* 73 hours, running overtime.

† All stockholders.

† 108 hours.

Inspection book No. 6.

TABLE No. 2.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
251	June 14	Jackson	Home Cigar Factory	Cigars	run.	full
252	" 14	"	American Steam Laundry	Laundry work	"	"
253	" 14	"	National Gas Co.	Gas	"	"
254	" 14	"	Jackson Brewing and Malting Co.	Beer	"	"
255	" 14	"	The Porter Manufacturing Co.	Starch	"	"
256	" 15	"	Elyria Variety Works	Specialties	"	"
257	" 15	"	Smith & Adams	Dressed lumber	"	"
258	" 15	"	The Thorpe Carriage Co.	Carriages	"	"
259	" 15	"	Aspinwall Manufacturing Co.	Potato and corn planters	"	"
260	" 17	"	Coronet Corset Co.	Corsets	"	"
261	" 17	"	U. S. Baking Co.	Baked goods	"	"
262	" 17	"	C. A. Track	Machinery	"	"
263	" 17	"	Bennett Clay Machinery Co.	Clay machinery	"	"
264	" 17	"	Harmon Manufacturing Co.	Flour mill machinery	"	"
265	" 17	"	Central City Soap Co.	Soap	"	"
266	" 18	"	Standard Manufacturing Co.	Muslin underwear	"	"
267	" 18	"	Bortree Corset Co.	Corsets	"	"
268	" 18	"	Reliance Corset Co.	"	"	"
269	" 18	"	Jackson Corset Co.	"	"	"
270	" 18	"	Dennis Machine Co.	Machinery	"	"
271	" 18	"	G. D. Walcott & Son	"	"	"
272	" 19	"	Jackson Glass Works	Mirrs & ornament. glass	"	"
273	" 19	"	M. C. R. B. Machine Shops	Machinery	"	part
274	" 19	"	M. C. R. B. Wood Shop	Woodwork	"	"
275	" 19	"	Central Oil Gas Stove Co.	Oil stoves	"	full
276	" 19	"	M. G. Loennecker	Cigars	"	"
277	" 19	"	Dolg & Riley	Sash, doors and blinds	"	part
278	" 19	"	Jackson City Boiler Works	Boilers	"	"
279	" 20	"	Jackson Fire Clay & Sew'r Pipe Co.	Brick and sewer pipe	"	full
280	" 20	"	Haehnle Brewing Co.	Beer	"	"
281	" 20	"	Bennett Sewer Pipe Co.	Sewer pipe	idle	"
282	" 20	"	Jackson Pulp Co.	Pulp	run.	full
283	" 20	"	Withington & Cooley M'fg Co.	Garden tools	"	part
284	" 20	"	Austin, Tomlinson & Webster Co.	Wagons	"	full
285	" 20	"	Lewis Blessing	Boxes	"	"
286	" 21	"	Novelty Manufacturing Co.	Oil stoves	"	"
287	" 21	"	Jackson Paper Manufacturing Co.	Paper	"	"
288	" 21	"	Jackson Electric Light Co.	Electricity	"	"
289	" 21	"	Fuller Buggy Co.	Buggies	"	"
290	" 21	"	Louis & Allen Spring Co.	Springs	"	"
291	" 21	"	The National Wheel Co.	Wheels	"	"
292	" 22	"	John Hutchinson Manufact'g Co.	Flour mill machinery	"	"
293	" 22	"	Michigan Manufacturing Co.	Carriages	"	"
294	" 24	"	Smalley Bros.	Brooms	"	"
295	" 25	Mason	Rogers Manufacturing Co.	Carriages	"	"
296	" 25	"	Mead Milling Co.	Flour and feed	"	"
297	" 25	"	G. W. Bailly	Staves and heading	idle	"
298	" 26	Jackson	Jackson Daily Citizen	Newspaper	run.	full
299	" 26	"	The White Laundry	Laundry work	"	"
300	" 29	"	Jackson Patriot	Newspaper	"	"

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?	
251	48	48	5	5			1	yes	8	\$200	60						yes					yes		
252	60	60	12	4					10	130	80	yes							yes	yes			yes	
253	60	60	4	4					10	200	60			yes	yes									
254	60	60	14	11					10	500	60													
255	54	54	6	4					9	135	60													
256	60	60	8	6					10	250	60													
257	54	54	30	19					9	800	60											yes		
258	60	60	150	144	6				10	5,700	60	yes												
259	60	60	60	30					10	925	50											yes		
260	60	60	175	15	160				10	3,200	60	yes						no					yes	
261	60	60	16	10	6				10	650	60													
262	60	60	6	6					10	260	60													
263	60	60	5	3					10	150	60			yes	yes	yes		yes						
264	54	*	30	30					9	1,196	60													
265	60	60	41	39	2				10	1,599	60												yes	
266	60	60	330	30	300				10	8,000	80							yes						
267	60	60	96	8	88				10	1,470	50			no				no						
268	53	55	80	3	77				9	1,746	80							no	yes					
269	59	59	165	25	140				10	4,690	60	yes												
270	54	54	35	20					10	600	60													
271	60	60	25	12					10	350	60		yes											
272	60	60	35	20					10	675	60		no								no			
273	60	48	450	352					8	14,490	45										yes			
274	60	54	57	57					9	2,842	60													
275	60	60	50	50					10	1,720	60		no								no	no		
276	48	48	12	4					10	130	60													
277	60	54	12	6					9	330	60	yes							yes		no			
278	60	54	14	4					9	232	60									yes				
279	60	60	60	60					10	1,642	60	yes	yes	yes	yes									
280	60	60	5	5					10	290	60													
281	60		80						10	1,140	60	yes		yes	yes	yes	yes	no		yes	no		yes	
282	†	†	25	25					9	1,550	60			yes						no	yes	yes		
283	60	54	50	45					10	2,500	80								no	no				
284	60	60	100	75					10	500	60								yes	yes				
285	60	60	35	5	25				10															
286	60	60	130	65					10	2,125	60		no	yes	yes							yes		
287	†	†	28	25	3				10	1,000	60												yes	
288	†	†	6	6					10	800	60										no			
289	60	60	140	137	3				10	5,200	60	yes	yes	yes	yes						yes			yes
290	60	60	57	57					10	2,461	50													
291	60	60	107	107			12	yes	10	3,324	50		yes	yes	yes							yes		
292	60	60	35	21	2				10	914	530													
293	60	60	60	57	3				10	2,500	60		no	yes	yes									yes
294	60	60	20	17	3				10	600	60							yes						
295	60	60	30	15					10	530	60													
296	60	60	4	3					10	120	60			no	no									
297	60		18																					
298	60	60	29	29					10	1,631	60	yes	yes	yes	yes	yes	yes	no		yes	yes		yes	
299	60	60	23	6	17				10	600	60		no						yes	yes			yes	
300	60	60	34	33	1				10	1,900	60													

* 60 hours; running overtime.

† 156 hours; running night and day.

‡ 144 hours; running night and day.

§ 168 hours; running all the time.

§ Permit given by inspector.

Inspection book No. 7.

TABLE No. 2.—CONTINUED.—

No. given factory for 1936.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
301	June 28	Jackson	J. B. Timberlake	Novalties	run.	full
302	" 28	"	Cone & Wilt	Bicycles	"	"
303	" 28	"	I. N. Branch	Baked goods	"	"
304	July 1	Chelsea	D. E. Sparks & Son	Flour and feed	"	"
305	" 1	"	The Glazier Stove Co.	Stoves	"	"
306	" 1	Dexter	L. Palmer	Baskets	idle	"
307	" 2	Ann Arbor	Michigan Furniture Co.	Furniture	run.	full
308	" 2	"	Martin & Fisher	Beer	"	"
309	" 2	"	Central Mills	Flour and feed	"	part
310	" 2	"	Ann Arbor Organ Co.	Organs	"	full
311	" 2	"	Ann Arbor Mfg Co.	Curtain, picture fixt., etc.	"	"
312	" 2	"	Ann Arbor Engine and Boiler W'ks	Machinery	"	"
313	" 2	"	The Argus	Newspaper	"	"
314	" 3	"	Linck Bros.	Dressed lumber	"	"
315	" 3	"	H. Krapf	Sash, doors and blinds	"	"
316	" 3	"	Ann Arbor Agr'l Implement Co.	Agricultural implements	"	"
317	" 3	"	Argo Mills	Flour and feed	"	part
318	" 3	"	Ferguson Cart and Carriage Co.	Carriages	"	full
319	" 5	"	Michigan Table Co.	Tables	"	"
320	" 5	"	C. F. Kayser	Cigars	"	"
321	" 5	"	The Courier	Newspaper	"	"
322	" 5	"	Ann Arbor Electric Granite Works	Granite works	"	"
323	" 5	"	M. M. Seabolt	Laundry work	"	"
324	" 5	"	The Crescent Works	Corsets	"	"
325	" 6	Ypsilanti	The Scharf Tag and Label Co.	Tags and labels	"	"
326	" 6	"	Ypsilanti Dress Stay Mfg Co.	Dress stays	"	"
327	" 6	"	McCullough Foundry	Castings	idle	"
328	" 6	"	Ypsilanti Lumber Co.	Sash, doors and blinds	run	full
329	" 8	"	Worden Bros.	Machinery	"	"
330	" 8	"	C. W. Dickinson	Handles	"	"
331	" 8	"	Ypsilanti Machine Co.	Machinery	"	"
332	" 8	"	Shemeld & Cook	Cigars	"	"
333	" 8	"	Wm. Denbel	Flour and feed	idle	"
334	" 8	"	H. R. Scovill	Sash, doors and blinds	run.	full
335	" 9	"	Hay & Todd Mfg Co.	Knit goods	"	"
336	" 9	"	White Laundry	Laundry work	"	"
337	" 9	"	Rubber Tipped Dress Stay Co.	Dress stays	"	"
338	" 9	"	Michigan Mfg Co.	Machinery	"	"
339	" 9	"	L. Y. Forester	Beer	"	"
340	" 9	"	Penninsular Paper Co.	Paper	† idle	"
341	" 10	Milan	C. H. Wilson	Lumber	run.	full
342	" 10	"	Milan Roller Mills	Flour and feed	idle	"
343	" 10	"	Globe Brick and Tile Works	Brick and tile	run.	full
344	" 10	"	W. P. Larkin	Lumber, feed, etc.	"	"
345	" 11	Dundee	H. Pulver	Lumber	idle	"
346	" 11	"	Dundee Cheese and Butter Co.	Cheese and butter	run.	full
347	" 11	"	Eureka Flowering Mills	Flour and feed	idle	"
348	" 11	"	Wm. Slayton	Dressed lumber	"	"
349	" 11	"	Wm. Slayton	Brick and tile	run.	full
350	" 11	Monroe	W. E. Sloane	Cigars	"	"

† Closed for repairs.

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1895.		Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
301	60	60	28	10	---	---	---	---	---	10	\$325	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
302	60	60	6	6	---	---	---	---	---	10	240	60	---	---	---	---	---	---	---	---	---	---	---	---
303	60	60	6	4	---	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---
304	60	60	4	4	---	---	---	---	---	10	180	60	---	---	no	yes	---	---	---	---	---	---	---	---
305	60	60	100	72	---	---	---	---	---	10	2,232	60	yes	---	yes	---	---	---	---	---	---	yes	---	---
306	60	60	12	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
307	60	60	70	70	---	---	---	2	no	10	2,421	60	yes	no	yes	yes	yes	no	yes	yes	yes	yes	yes	---
308	60	60	4	4	---	---	---	---	---	10	190	60	---	---	---	---	---	---	---	---	---	---	---	---
309	* 72	13	8	2	---	---	---	---	---	11	385	60	---	---	---	---	---	---	---	---	---	---	---	---
310	60	60	82	32	---	---	---	3	no	10	1,400	60	---	---	---	---	---	---	---	---	---	---	---	yes
311	60	60	25	8	2	---	---	---	---	10	840	60	---	---	---	---	---	---	---	---	---	---	---	yes
312	60	60	12	4	---	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---
313	60	60	15	11	1	---	---	---	---	10	435	60	---	---	---	---	---	---	---	---	---	---	---	yes
314	60	60	13	13	---	---	---	---	---	10	600	60	---	---	---	---	---	---	---	---	---	yes	---	---
315	60	60	13	4	---	---	---	---	---	10	173	60	---	---	---	---	---	---	---	---	yes	---	---	---
316	60	60	95	47	---	---	---	---	---	10	1,800	60	---	no	---	---	---	---	---	---	no	yes	---	---
317	* 60	9	6	6	---	---	---	---	---	12	240	60	---	---	---	---	---	---	---	---	yes	---	---	---
318	60	60	40	40	---	---	---	---	---	10	1,600	60	---	no	---	---	---	---	---	---	---	---	---	---
319	60	60	9	9	---	---	---	---	---	10	280	60	---	yes	---	---	---	---	---	---	---	---	---	---
320	48	48	9	9	---	---	---	---	---	8	350	60	---	---	---	---	---	---	---	---	---	---	---	---
321	60	60	26	16	7	---	---	---	---	10	850	60	yes	no	no	---	---	---	---	yes	yes	---	---	yes
322	60	60	12	10	---	---	---	---	---	10	450	60	---	---	---	---	---	---	---	---	---	---	---	---
323	60	60	10	---	5	---	---	---	---	10	145	60	---	---	---	---	---	---	---	---	---	---	---	yes
324	54	54	20	4	14	---	---	---	---	9	520	60	---	no	no	yes	---	---	yes	yes	yes	---	---	yes
325	60	60	62	30	32	---	1	yes	---	10	1,150	60	---	yes	yes	---	---	---	---	yes	yes	---	---	---
326	60	60	75	11	64	---	---	---	---	10	2,000	60	---	---	---	---	---	---	---	---	---	yes	---	---
327	90	---	8	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
328	60	60	11	11	---	---	---	---	---	10	435	60	yes	---	---	---	yes	no	---	yes	no	---	yes	---
329	60	60	3	3	---	---	---	---	---	10	---	60	---	---	---	---	---	---	---	---	yes	---	---	---
330	57	57	3	3	---	---	---	---	---	10	85	60	---	---	---	---	---	---	---	---	---	no	---	---
331	60	60	20	10	---	---	---	---	---	10	540	60	---	---	yes	yes	---	---	---	---	no	---	---	---
332	48	48	4	2	---	---	---	---	---	8	80	60	---	---	---	---	---	---	---	---	---	---	---	---
333	60	---	6	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
334	60	60	8	6	---	---	---	---	---	10	325	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
335	60	60	300	20	250	---	---	---	---	10	5,085	60	---	yes	---	---	---	---	---	---	---	---	---	---
336	60	60	8	2	4	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	yes
337	60	60	32	5	27	---	---	---	---	10	+	60	---	---	---	---	---	---	---	---	no	---	---	---
338	60	60	18	10	---	---	---	---	---	10	433	60	---	---	yes	yes	---	---	---	---	yes	yes	---	---
339	72	72	10	10	---	---	---	---	---	12	450	60	---	---	no	no	---	---	---	---	yes	yes	---	---
340	*	---	45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
341	60	60	9	9	---	---	---	---	---	10	345	60	yes	---	---	---	yes	no	---	yes	yes	---	yes	---
342	60	---	3	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
343	60	60	15	15	---	---	---	---	---	10	625	60	yes	---	---	---	yes	no	---	yes	yes	no	yes	---
344	60	60	8	3	---	---	---	---	---	10	90	60	yes	---	---	---	---	---	---	yes	yes	no	yes	---
345	60	---	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
346	60	60	2	2	---	---	---	---	---	10	80	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
347	60	---	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
348	60	---	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
349	60	60	23	23	---	---	---	---	---	10	615	60	yes	---	---	---	yes	no	---	yes	no	---	yes	---
350	48	48	4	4	---	---	---	---	---	8	160	60	---	---	---	---	---	---	---	---	---	---	---	---

* 144 hours, running night and day.

† Just started.

Inspection book No. 8.

TABLE No. 2.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
351	July 12	Monroe	F. G. Ohr	Wagons	run.	full
352	" 12	"	Beck & Beyer	Wagons and carriages	"	"
353	" 12	"	J. J. Duseau	Cigars	"	"
354	" 12	"	C. P. Root & Son	Sash, doors and blinds	"	"
355	" 12	"	John Wahl	Beer	"	"
356	" 12	"	Monroe Paper Co.	Paper	"	"
357	" 12	"	Waterloo Roller Mills	Flour and feed	idle	"
358	" 12	"	Monroe Democrat	Newspaper	run.	full
359	" 12	"	Waterloo Woolen Mills	Yarn	idle	"
360	" 12	"	Home Laundry	Laundry work	run.	full
361	" 12	"	Boehme & Ranch Cordage Co.	Rope and cordage	"	"
362	" 12	"	Monroe City Mills	Flour and feed	idle	"
363	" 12	"	J. K. Wilder & Sons	Agricultural implements	run.	full
364	" 15	"	Reichbaur Bros	Marble works	"	"
365	" 15	"	W. C. Sterling & Son	Paving blocks and poles	"	"
366	" 15	"	The Deniser Furniture Co.	Furniture	"	"
367	" 15	"	Walldorf & Son	Binders' board	idle	"
368	" 15	"	Monroe Commercial	Newspaper	run.	full
369	" 15	"	Monroe Butter and Cheese Co.	Butter and cheese	"	"
370	" 15	"	C. T. Beck & Son	Sash, doors and blinds	"	"
371	" 16	"	W. J. Dans	Cigars	"	"
372	" 16	"	Monroe Foundry and Furnace Co.	Furnaces and castings	"	part
373	" 16	"	Monroe Electric Light Co.	Electric lights	"	full
374	" 16	"	Frank Sedlacek	Cigars	"	"
375	" 16	"	Monroe Steam Laundry	Laundry work	"	"
376	" 16	"	Jacob Roeder	Beer	"	"
377	" 17	"	J. C. Eaton	Brick and tile	"	"
378	" 17	Carleton	Carleton Mills	Flour and feed	"	"
379	" 17	"	M. Artley	Lumber	"	"
380	" 17	Steiner	John Kohler	"	idle	"
381	" 18	Newport	Newport Mills	Flour and feed	run.	part
382	" 18	"	J. W. Ward & Son	Baskets	idle	"
383	" 18	La Salle	N. R. Kinnie	Lumber	"	"
384	" 19	Vienna	McClain & Co.	Lumber and brick	"	"
385	" 19	"	W. W. Delphey	Flour and feed	"	"
386	" 19	Temperance	Temperance Roller Mills	" " "	run.	part
387	" 19	"	E. A. Armstrong	Wagons and repairs	"	full
388	" 19	"	Temperance Creamery Co.	Butter	"	"
389	" 19	Samaria	B. E. Bullock	Lumber	idle	"
390	" 19	Ida	Oetjens & Gillhousen	Lumber, flour and feed	"	"
391	" 20	Petersburg	Star Roller Mills	Flour and feed	run.	full
392	" 20	Adrian	Adrian Weekly Press	Newspaper	"	"
393	" 20	"	Evening Telegram	"	"	"
394	" 20	"	Excelsior Laundry	Laundry work	"	"
395	" 22	"	Austin & Rose	Sash, doors and blinds	"	"
396	" 22	"	The Adrian Furniture M'fg Co.	Furniture	"	"
397	" 22	"	L. S. & M. S. R'y Repair Shop	General repairs	"	part
398	" 22	"	Page Woven Wire Fence Co.	Wire fence	"	full
399	" 22	"	M. H. Higby Lumber Co.	Lumber	"	"
400	" 22	"	Church Manufacturing Co.	Iron pumps	"	"

THIRD ANNUAL REPORT.

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District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary.	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
351	60	60	5	5					10	\$185	60			yes	yes	yes	no					yes	
352	60	60	8	3					10	140	60												
353	48	48	5	4					8	108	60												
354	60	60	12	7					10	325	60	yes		yes	yes			yes	no				
355	60	60	22	22					10	1,000	60							yes	no				
356	*	*	15	15					11		60								no				
357	60		8						10	286	60	yes					yes	no	yes	yes		yes	
358	60	60	8	8					10		60						yes	no		yes		yes	
359	60		8						10		60	yes					yes	no				yes	yes
360	60	60	6	2	2				10	100	60	yes					yes	no				yes	yes
361	60	60	11	11			2	no	10	180	60			yes	yes			yes	yes				
362	60		5						10		60	yes		yes	yes	yes	no		yes	yes		yes	
363	60		20	10					10	335	60	yes		yes	yes	yes	no		yes	yes		yes	
364	60	60	4	4					10	200	60							yes	yes				
365	60	60	25	6					10	250	60	yes						yes	yes				
366	60	60	65	45			5	yes	10	1,735	130		no	yes	yes				no	yes			
367	60		12						10		60	yes			yes	yes	no		yes	yes		yes	
368	60	60	22	22		11	1	no	10	180	60	yes			yes	yes	no		yes	yes		yes	
369	60	60	4	4					10	105	60			yes	yes			no	no	no			
370	60	60	10	10					10	400	60			yes	yes			no	no	no			
371	48	48	4	4					8	90	60											no	
372	60	54	22	22					10	600	60	yes						yes	yes			yes	
373	54	54	2	2					12	95	60												
374	60	60	6	5					10	300	60												
375	60	60	6	2	4				10	150	60	yes											yes
376	60	60	12	12					10	535	60			yes	yes			yes	yes				
377	60	60	20	20					10	650	60												
378	60	60	3	2					10	61	60			yes									
379	60	60	6	3					10	78	60									no			
380	60		6																				
381	60	30	4	4					10	90	60	yes		yes	yes	yes	no		no	yes		yes	
382	60		8																				
383	60		5																				
384	60		12																				
385	60		3																				
386	60	40	3	3					10	110	60	yes		yes	yes	yes	no		yes	yes		yes	
387	60	60	4	4					10	125	60												
388	60	60	2	2					10	60	60	yes						yes	yes				
389	60		8																				
390	60		4																				
391	72	72	3	3					12	90	60	yes		yes	yes	yes	no		yes	yes		yes	
392	60	60	6	5	1				10	260	60											yes	
393	60	60	12	8	8				10	435	60								yes				
394	60	60	6	3	3				10	156	60												
395	60	60	18	8					10	300	60		yes	yes	yes								
396	60	†	105	105					12	2,700	50	no						yes			yes		
397	60	54	225	225					9	8,750	60										no		
398	60	60	125	125					10	5,100	60		yes										
399	60	60	29	25					10	845	60												
400	60	60	18	18					10	360	60		no							no	yes		

* 144 hours; running night and day.

† 72 hours; running overtime.

‡ Permit given by inspector.

Inspection book No. 9.

TABLE No. 2.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
401	July 23	Adrian.	E. Palmer Furniture Co.	Chairs.	run.	full
402	" 23	"	Gilliland Electric Co.	Telephones.	"	"
403	" 23	"	J. Callahan.	Cigars.	"	"
404	" 23	"	Michigan Granite Co.	Granite.	"	"
405	" 23	"	The Goodsell Mfg Co.	Sash, doors and blinds.	"	"
406	" 23	"	The Washington Milling Co.	Flour and feed.	"	part
407	" 24	"	Electric Light and Power Co.	Electricity.	"	full
408	" 24	"	Adrian Brick and Tile Machine Co.	Brick and tile machines.	"	part
409	" 24	"	Michigan Plating Co.	Silver and nickel plating.	"	"
410	" 24	"	Cornell & Knapp.	Labeling machinery.	idle	"
411	" 24	"	Union Brewery.	Beer.	run.	full
412	" 24	"	Kells & Sons.	Machinery.	"	part
413	" 25	"	Decker & Kaiser.	Boilers.	"	full
414	" 25	"	Adrian Plating Works.	Gold, silver & nickel plat'g.	"	"
415	" 25	"	J. E. Harrison & Son.	Granite.	"	"
416	" 25	"	The Times.	Newspapers.	"	"
417	" 25	Hudson.	Bean & Chamberlain Mfg Co.	Pumps and plows.	"	part
418	" 25	"	N. Lane.	Machinery.	"	full
419	" 25	"	Hudson Milling Co.	Flour and feed.	"	"
420	" 25	"	H. Kellogg.	Harnesses.	"	"
421	" 26	Hilledale.	Louis Globenskey.	Barrels.	"	"
422	" 26	"	E. C. Campbell.	Sash, doors and blinds.	"	"
423	" 26	"	Hilledale City Roller Mills.	Flour and feed.	"	"
424	" 26	"	Hilledale Cigar Co.	Cigars.	"	"
425	" 27	Jonesville.	J. J. Deal & Son.	Carriages.	"	"
426	" 27	"	Grosvener Co. Mills.	Flour and feed.	"	part
427	" 31	Angusta.	American Handle Co.	Handles.	idle	"
428	" 31	Galesburg.	Barlow & Youmans.	Windmills.	"	"
429	Aug. 2	Comstock.	Comstock Mfg Co.	Engines.	run.	full
430	" 6	Williamston.	Wm. P. Ainsley.	Staves and headings.	idle	"
431	" 6	Howell.	Michigan Condensed Milk Co.	Condensed milk.	run.	full
432	" 6	"	J. M. Clark & Co.	Trucks and wagons.	"	part
433	" 6	"	Garland Mackintosh Co.	Mackintoshes.	"	full
434	" 6	"	Culver Bros.	Cigars.	"	"
435	" 7	"	J. H. Wright.	Sash, doors and blinds.	idle	"
436	" 7	South Lyons.	South Lyons Mfg Co.	Plumbers' supplies.	run.	full
437	" 8	Mt. Clemens.	Mt. Clemens Brewing Co.	Beer.	"	"
438	" 8	"	B. Van Landeghem.	Staves and heading.	"	"
439	" 8	"	A. Brehler & Son.	Sash, doors and blinds.	idle	"
440	" 9	"	Detroit & Erin Plank Road Co.	Lumber.	"	"
441	" 9	"	Mt. Clemens Electric Co.	Electric lights.	run.	full
442	" 9	"	Hort's Steam Laundry.	Laundry work.	"	"
443	" 9	"	The Model Laundry.	"	"	"
444	" 9	"	Wm. Rutland.	Cigars.	"	"
445	" 9	"	J. Lonsby & Son.	Sash, doors and blinds.	"	"
446	" 10	"	Paroda Springs Co.	Mineral water.	"	"
447	" 10	"	T. W. Snook & Son.	Staves.	"	"
448	" 10	"	Donaldson Bros.	Carriages, wagons, etc.	"	"
449	" 10	"	Phillips & McCready.	Machinery.	"	"
450	" 10	"	H. Cadon.	Brick.	"	"

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
401	60	60	80	20	---	---	---	---	10	\$600	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
402	60	60	170	100	---	---	---	---	10	4,000	60	---	---	---	---	---	---	---	---	---	---	---	---
403	48	48	5	5	---	---	---	---	10	240	60	---	---	---	---	---	---	---	---	---	---	---	---
404	54	54	15	14	---	---	---	---	9	950	60	yes	---	---	---	---	---	---	yes	yes	---	---	---
405	60	60	16	16	---	---	---	---	10	567	60	---	---	yes	yes	---	---	---	no	no	no	---	---
406	* 72	14	7	---	---	---	---	---	---	356	60	---	---	---	---	---	---	---	yes	---	---	---	---
407	†	5	5	---	---	---	---	---	12	220	60	---	---	---	---	---	---	---	---	---	---	---	---
408	60	45	50	23	---	---	---	---	10	666	60	---	---	yes	yes	---	---	---	---	yes	---	---	---
409	60	45	8	5	3	---	---	---	10	280	60	---	---	---	---	---	---	---	---	---	---	---	---
410	60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
411	60	60	5	5	---	---	---	---	10	175	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
412	60	48	18	12	---	---	---	---	10	435	60	---	---	---	---	---	---	---	yes	---	---	---	---
413	60	60	4	4	---	---	---	---	10	190	60	---	---	---	---	---	---	---	---	---	---	---	---
414	60	60	14	5	3	---	---	---	10	265	60	---	---	---	---	---	---	---	---	---	---	---	yes
415	54	54	60	8	1	---	---	---	9	700	60	---	---	yes	yes	---	---	---	---	---	---	---	---
416	60	60	25	19	1	---	---	---	10	850	60	---	---	yes	yes	---	---	---	---	---	---	---	---
417	60	48	70	50	---	---	---	---	10	1,733	60	no	---	---	---	---	---	---	---	---	no	---	---
418	66	60	6	3	---	---	---	---	10	120	60	---	---	---	---	---	---	---	---	---	---	---	---
419	66	66	6	5	---	---	---	---	11	215	60	---	---	yes	yes	---	---	---	---	---	---	---	---
420	60	60	25	12	---	---	---	---	10	575	60	---	no	---	---	---	---	---	---	---	---	---	---
421	60	60	26	5	---	---	---	---	10	112	60	---	---	---	---	---	---	---	---	---	---	---	---
422	60	60	6	6	---	---	---	---	10	213	60	yes	---	yes	yes	---	---	---	yes	yes	---	---	---
423	* †	65	65	---	---	---	---	---	12	2,000	60	---	---	yes	---	---	---	---	---	no	yes	---	---
424	48	48	17	12	---	---	---	---	8	650	60	---	---	---	---	---	---	---	---	---	---	---	---
425	60	60	75	50	---	---	---	---	10	1,950	60	yes	no	yes	yes	---	---	---	yes	yes	---	---	---
426	* 66	7	5	---	---	---	---	---	11	280	60	---	---	---	---	---	---	---	---	---	---	---	---
427	60	---	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
428	60	---	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
429	60	60	40	25	---	---	---	---	10	1,080	60	yes	---	yes	yes	yes	no	---	yes	yes	no	yes	---
430	60	---	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
431	60	60	60	30	30	---	---	---	10	2,000	60	yes	yes	yes	yes	yes	no	---	yes	yes	---	yes	yes
432	60	30	20	8	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---
433	60	60	25	6	19	---	---	---	10	1,000	60	---	---	---	---	---	---	---	---	---	---	---	yes
434	48	48	14	6	---	---	---	---	8	240	60	---	---	---	---	---	---	---	---	---	---	---	---
435	60	---	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
436	60	†	35	35	---	---	---	---	10	1,050	60	yes	---	no	no	yes	no	---	yes	no	yes	yes	---
437	60	60	6	6	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	---
438	6	60	74	35	35	---	---	---	10	1,733	60	---	---	---	---	---	---	---	no	no	---	---	---
439	60	---	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
440	60	---	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
441	72	72	5	5	---	---	---	---	12	200	60	yes	---	---	---	yes	no	---	yes	no	---	yes	---
442	60	60	31	5	26	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	---
443	60	60	8	---	4	---	---	---	10	108	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
444	48	48	4	2	---	---	---	---	8	68	60	---	---	---	---	---	---	---	---	---	---	---	---
445	60	60	9	9	---	---	---	---	---	390	60	yes	---	yes	yes	---	---	---	no	no	---	---	---
446	60	60	7	3	2	---	---	---	10	86	60	---	---	---	---	---	---	---	yes	yes	---	---	yes
447	60	60	56	42	---	---	---	---	10	1,100	60	---	---	---	---	---	---	---	---	---	---	---	---
448	60	60	60	60	---	---	---	---	10	2,165	60	---	no	---	---	---	---	---	---	---	---	---	---
449	60	60	3	3	---	---	---	---	10	110	60	---	---	---	---	---	---	---	---	---	---	---	---
450	60	60	10	8	---	---	---	---	10	225	60	---	---	---	---	---	---	---	---	---	---	---	---

* 144 hours; running night and day.

† 75 hours; running overtime.

‡ 165 hours; running all the time.

Inspection book No. 10.

TABLE No. 2.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
451	Aug. 12	Mt. Clemens.	A. Biewer.....	Beer	run.	full
452	" 12	"	M. Glase	Cigars	"	"
453	" 12	"	Mt. Clemens Cigar Co.	"	"	"
454	" 12	"	Mt. Clemens City Mills	Flour and feed	"	"
455	" 12	"	The Sprudel Water Co.	Mineral water	"	"
456	" 12	"	Lee Printing Co.	Printed matter	"	"
457	" 12	"	Mt. Clemens Press	Newspaper	"	"
458	" 12	"	Mt. Clemens Monitor	"	"	"
459	" 13	"	J. Koehler	Wagons	"	"
460	" 13	"	Wm. Dulac & Son	Dressed lumber	"	"
461	" 13	"	H. Weigel	Potash	"	"
462	" 13	Lenox	Richmond's Consolidated Co.	Hay bale ties	"	"
463	" 13	"	Fred Hear	Sash, doors and blinds	"	"
464	" 13	Richmond	G. W. Weston	"	idle	"
465	" 13	"	Weter, Fanning & Co.	Eggs	run.	full
466	" 14	"	Miller & Cool-y	Plows	"	part
467	" 14	"	Richmond Woolen Mills	Yarn and cloth	"	full
468	" 14	Romeo	H. W. Bradley & Bros.	Cigars	"	"
469	" 14	"	R. J. Hoener	Door hangers	"	"
470	" 14	"	A. Kennedy	Sash, doors and blinds	"	"
471	" 14	"	Casey & Trembly	Carriages and cutters	"	"
472	" 15	"	Hill Cart Co.	Carriages	"	"
473	" 15	"	D. P. Smith	Staves, heading & lumber	"	"
474	" 15	Pontiac	Pontiac Knitting Works Co.	Knit goods	"	"
475	" 15	"	Pontiac Steam Laundry	Laundry work	"	"
476	" 15	"	Pontiac Buggy Co.	Buggies	"	"
477	" 15	"	G. V. Taylor	Carriages	idle	"
478	" 16	"	Pontiac Phaeton Co.	Phaetons	run.	full
479	" 16	"	M. Halfpenny & Co.	Sulkies	"	"
480	" 16	"	E. Howland & Son	Machinery	"	"
481	" 16	"	Pontiac Spring Works	Spring wagons	"	"
482	" 16	"	R. D. Scott & Co.	Carriages and carts	"	"
483	" 16	"	H. Heltsch	General woodwork	"	"
484	" 17	"	Times Publishing Co.	Newspaper	"	"
485	" 17	"	Pontiac Daily Gazette	"	"	"
486	" 17	"	O. J. Beandett & Co.	Buggy bodies	"	"
487	" 20	Lapeer	J. Hungerford & Son	Carriages	"	"
488	" 20	"	Lapeer Handle Co.	Handles	"	"
489	" 20	"	Wm. McDonald	Machinery	"	"
490	" 20	"	Centennial Mills	Flour and feed	"	"
491	" 20	"	Lapeer Steam Laundry	Laundry work	"	"
492	" 20	"	Lapeer City Brewery	Beer	"	"
493	" 20	"	C. Tuttle	Sash, doors and blinds	"	"
494	" 20	"	J. White	Brick and tile	"	part
495	" 21	Port Huron	Port Huron News	Newspaper	"	full
496	" 21	"	E. C. Williams	Job printing	"	"
497	" 21	"	Port Huron Marble Works	Marble and granite	"	"
498	" 21	"	Riverside Printing Co.	Job printing	"	"
499	" 21	"	Port Huron Times	Newspaper	"	"
500	" 22	"	C. E. Mudford	Cigars	"	"

THIRD ANNUAL REPORT.

101

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
451	60	60	4	4	---	---	---	---	10	\$203	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
452	48	48	4	4	---	---	---	---	8	88	60	---	---	---	---	---	---	---	---	---	---	---	---
453	48	48	3	3	---	---	---	---	8	90	---	---	---	---	---	---	---	---	---	---	---	---	---
454	60	60	7	7	---	---	---	---	10	340	60	yes	---	---	---	---	---	---	yes	yes	---	---	---
455	60	60	20	5	---	---	---	---	10	170	60	---	---	---	---	---	---	---	---	---	---	---	---
456	60	60	4	4	---	---	---	---	10	140	60	---	---	---	---	---	---	---	---	---	---	---	---
457	54	54	6	3	1	---	---	---	9	130	60	---	---	---	---	---	---	---	---	---	---	---	yes
458	54	54	8	4	---	---	---	---	9	180	60	---	---	---	---	---	---	---	---	---	---	---	yes
459	60	60	6	3	---	---	---	---	10	105	60	---	---	---	---	---	---	---	---	---	---	---	---
460	60	60	12	12	---	---	---	---	10	433	60	yes	---	yes	yes	---	---	yes	no	---	---	---	---
461	60	60	4	4	---	---	---	---	10	140	60	---	---	---	---	---	---	---	---	---	---	---	---
462	60	60	12	12	---	---	---	---	10	345	60	---	---	---	---	---	---	---	---	yes	---	---	---
463	60	60	4	3	---	---	---	---	10	66	60	yes	---	yes	yes	---	---	yes	no	---	---	---	---
464	5	4	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
465	60	60	10	9	---	---	---	---	10	350	60	yes	no	yes	yes	yes	no	---	---	---	yes	---	---
466	60	60	4	4	---	---	---	---	10	160	60	---	---	---	---	---	---	---	yes	yes	---	---	---
467	60	60	6	5	1	---	---	---	10	118	60	yes	---	yes	yes	---	---	yes	yes	---	---	yes	---
468	60	60	20	11	2	---	---	---	10	290	60	---	---	---	---	---	---	---	---	---	---	---	---
469	60	60	25	15	---	---	1	---	10	600	60	yes	---	---	---	---	---	yes	yes	---	---	---	---
470	60	60	8	6	---	---	---	---	10	260	60	---	---	---	---	---	---	---	no	---	---	---	---
471	60	60	6	6	---	---	---	---	16	215	60	no	yes	---	---	---	---	---	---	---	---	---	---
472	60	60	85	8	---	---	---	---	10	305	60	yes	---	---	---	---	---	yes	yes	---	---	---	---
473	60	60	35	15	---	---	---	---	10	350	*40	---	---	---	---	---	---	---	---	---	---	---	---
474	60	60	225	50	52	---	---	---	10	2,500	60	---	---	---	---	---	---	---	---	---	---	yes	---
475	60	60	10	3	6	---	---	---	10	195	60	---	---	---	---	---	---	---	---	---	---	---	---
476	60	60	80	28	2	---	---	---	10	1,325	---	---	yes	---	---	---	---	---	---	---	---	---	---
477	60	60	100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
478	60	60	15	12	3	---	---	---	10	434	---	---	---	yes	yes	yes	no	---	---	---	yes	---	---
479	60	60	8	8	---	---	---	---	10	416	60	---	---	---	---	---	---	---	---	---	---	---	---
480	60	60	15	5	---	---	---	---	10	216	60	---	---	---	---	---	---	yes	yes	---	---	---	---
481	60	60	14	7	---	---	---	---	10	217	60	yes	---	---	---	---	---	---	---	---	---	---	---
482	60	60	59	42	---	---	---	---	10	1,500	50	---	yes	---	---	---	no	---	no	---	---	---	---
483	60	60	20	12	---	---	---	---	10	468	60	---	---	no	---	---	---	no	yes	---	---	---	---
484	60	60	3	2	1	---	---	---	10	78	60	---	---	---	---	---	---	---	yes	yes	---	---	---
485	54	54	9	6	3	---	---	---	9	260	60	---	---	no	---	---	---	---	---	---	---	yes	---
486	60	60	80	80	---	1	---	---	10	2,000	60	---	no	yes	---	---	---	---	no	yes	---	---	---
487	60	60	5	2	---	---	---	---	10	90	60	---	---	---	---	---	---	---	---	---	---	---	---
488	60	60	9	6	---	---	---	---	10	210	60	yes	---	---	---	---	---	yes	yes	---	---	---	---
489	60	60	6	5	---	---	---	---	10	280	60	---	yes	---	---	---	---	---	---	---	---	---	---
490	60	60	6	3	---	---	---	---	10	130	60	---	---	yes	yes	---	---	---	---	---	---	---	---
491	60	60	3	---	3	---	---	---	10	27	60	---	---	---	---	---	---	---	---	---	---	---	yes
492	60	60	4	3	---	---	---	---	10	180	60	---	---	yes	yes	---	---	---	---	---	---	---	---
493	60	60	14	14	---	---	---	---	10	550	60	---	---	---	---	---	---	---	---	---	---	---	---
494	60	60	25	10	---	---	---	---	10	350	60	---	---	---	---	---	---	---	---	---	---	---	---
495	60	60	13	8	4	---	---	---	10	433	*30	---	---	---	---	---	---	---	---	---	---	yes	---
496	58	58	5	5	---	---	---	---	9	216	60	---	---	---	---	---	---	---	---	yes	---	---	---
497	60	60	9	9	---	---	---	---	10	520	60	---	---	---	---	---	---	---	---	---	---	---	---
498	57	57	35	26	9	---	---	2	9	954	60	yes	no	yes	yes	---	no	yes	yes	---	---	yes	
499	60	60	24	18	6	---	2	no	10	823	60	---	---	---	---	---	---	---	---	---	---	---	---
500	48	48	25	18	2	---	---	---	8	900	60	---	---	---	---	---	---	---	---	---	---	---	---

* Permit given by inspector.

Inspection book No. 11.

TABLE No. 2.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
501	Aug. 23	Port Huron..	C. & G. T. R'y Car Shops	Railway cars	run.	full
502	" 23	"	C. & G. T. R'y Machine Shops.....	Machinery	"	part
503	" 23	"	Botsford's Elevator Co.	Grain	"	full
504	" 23	"	Michigan Carriage Co.	Carriages	"	"
505	" 23	"	H. Howard Estate, saw mill.....	Lumber	"	"
506	" 23	"	Dunford & Alverson.....	Dry dock	"	part
507	" 23	"	City Steam Laundry.....	Laundry work	"	full
508	" 23	"	F. D. Jenks	Dressed lumber	"	"
509	" 23	"	F. J. Haynes & Co.	"	"	"
510	" 23	"	Michigan Sulphite Fiber Co.	Sulphite fiber	"	"
511	" 23	"	Jenks Shipbuilding Co.	Boats	idle	"
512	" 24	"	P't Huron Engine and Thresher Co.	Engines and threshers ..	run.	full
513	" 24	"	Commercial Tribune Pub. Co.....	Newspaper	"	"
514	" 24	"	R. M. Campbell	Sash, doors and blinds ..	"	part
515	" 24	"	Tunnel City Boiler Works	Boilers	"	full
516	" 24	"	F. & P. M. R'y Machine Shops	Machinery	"	part
517	" 26	"	Phoenix Iron Works	"	"	full
518	" 26	"	P't Huron Fiber Garment Mfg Co.	Fiber garments	"	"
519	" 26	"	Excelsior Electric Light Co.....	Electricity	"	"
520	" 26	"	Standard Fiber Novelty Co.....	Fiber interlining	"	"
521	" 27	"	Riverside Woodwork Co.....	Sash, doors and blinds ..	"	"
522	" 27	"	Cooley Gould Mfg Co.	"	"	"
523	" 28	Minden City..	Stipe & Son	Foundry	"	"
524	" 28	"	Joe Murdock	Woolen yarn	"	"
525	" 29	Croswell	M. Campbell	Castings and machinery..	"	"
526	" 29	"	Jas. Livingston & Co.	Flax mill	"	"
527	" 30	Yale	Jas. Livingston & Co.....	Prepared flax	"	"
528	" 30	"	C. Andrese & Son	Yarn and cloth	"	"
529	Sept. 1	St. Clair	Thomson Bros.	Salt	"	"
530	" 2	"	Diamond Crystal Salt Co.....	"	"	part
531	" 2	"	N. & B. Mills	Sash, doors and blinds ..	"	full
532	" 2	"	C. Sheldon	Rough leather	"	"
533	" 2	"	C. Sheldon	Brick	"	"
534	" 3	Marine City..	A. C. Bachelor Estate	Barrels	"	"
535	" 3	"	Marine City Stave Co.....	Staves and salt	"	"
536	" 3	"	Davidson & Wonsey	Salt	"	"
537	" 3	"	A. Bower & Co.....	Sash, doors and blinds ..	"	"
538	" 3	"	M. Sicken	Dressed lumber	"	"
539	" 4	Algonac	John A. Smith	Staves and hoops	idle	"
540	" 4	"	C. J. Dowswell	Dressed lumber	"	"
541	" 5	Utica	Schott & Hollister	Sash, doors and blinds ..	run.	full
542	" 5	"	Kape & Doerfler	Wagons	"	"
543	" 5	"	A. McVittie	Lumber	idle	"
544	" 6	Rochester ..	Western Knitting Mills	Knit goods	run.	full
545	" 6	"	Peninsular Paper Co.....	Paper	"	"
546	" 6	"	D. B. Kressler	Sash, doors and blinds ..	"	"
547	" 6	"	Monroe Cart Co.....	Carts and wagons	"	"
548	" 6	"	Jackson & Co.	Machinery	"	part
549	" 7	Battle Creek..	Duplex Printing Press Co.....	Printing presses	"	full
550	" 10	Lansing	Clippert & Spaulding.....	Brick and tile	"	"

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and wall holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shafts used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
501	58	58	360	128	---	---	---	---	9	35,400	80	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
502	58	54	375	320	---	---	---	---	10	14,000	80	---	no	---	---	---	---	---	---	---	---	---	---
503	60	60	10	10	---	---	---	---	10	433	80	---	---	---	---	---	---	---	---	---	---	---	---
504	60	60	75	22	---	---	---	---	10	885	80	---	no	---	---	---	---	---	---	---	---	---	---
505	60	60	40	40	---	---	---	---	10	1,035	80	---	---	---	---	---	---	---	---	---	---	---	---
506	60	60	150	80	---	---	---	---	10	1,000	80	---	---	---	---	---	---	---	---	---	---	---	---
507	60	60	25	4	30	---	---	---	10	510	80	---	---	yes	yes	---	---	---	---	---	---	---	---
508	60	60	15	5	---	---	---	---	10	195	80	---	---	---	---	---	---	---	---	---	---	---	yes
509	60	60	4	4	---	---	---	---	10	130	80	---	---	yes	yes	---	---	---	---	---	---	---	---
510	60	60	129	93	37	---	---	---	10	2,600	80	---	---	---	---	---	---	---	---	---	---	---	yes
511	60	---	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
512	60	60	220	217	---	---	---	---	10	10,800	60	yes	yes	---	---	yes	no	---	yes	yes	yes	yes	yes
513	58	58	25	13	---	---	---	---	10	580	80	---	---	---	---	---	---	---	---	---	---	---	no
514	60	48	30	30	---	---	---	---	10	567	80	---	yes	---	---	---	---	---	---	---	yes	---	---
515	60	60	40	40	---	---	---	---	10	100	80	---	---	---	---	---	---	---	---	---	---	---	---
516	60	54	50	23	---	---	---	---	10	1,150	---	---	---	---	---	---	---	---	---	---	---	---	---
517	60	60	100	23	---	---	---	---	10	1,200	60	---	---	yes	yes	---	---	---	---	---	---	---	---
518	54	54	25	4	31	---	---	---	9	400	80	---	---	---	---	---	yes	no	---	---	---	---	yes
519	---	---	5	5	---	---	---	---	12	255	80	---	---	---	---	---	no	---	---	no	---	---	---
520	---	---	11	6	---	---	---	---	10	800	80	---	---	---	---	---	---	---	---	---	---	---	yes
521	60	60	60	30	4	---	---	---	10	1,300	60	---	no	yes	yes	---	---	no	no	---	no	---	---
522	60	60	15	4	---	---	---	---	10	175	60	---	---	---	---	---	---	---	yes	---	---	---	---
523	60	60	8	8	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	yes	---	---	---
524	60	60	7	5	2	---	---	---	10	88	60	---	---	no	yes	---	---	---	---	---	---	no	---
525	60	60	6	5	---	---	---	---	16	200	60	---	---	---	---	---	---	---	---	---	---	---	---
526	60	60	30	30	---	---	---	---	10	975	60	---	---	yes	yes	---	---	---	---	no	---	---	---
527	60	60	150	150	---	---	---	---	10	2,155	60	---	---	---	---	---	---	---	---	---	---	---	---
528	60	60	14	9	---	---	---	---	10	890	60	---	---	---	---	---	---	---	---	yes	---	---	no
529	60	60	65	57	6	---	---	---	12	2,000	60	---	---	---	---	---	---	---	---	---	---	---	yes
530	60	60	83	26	7	---	---	---	10	1,500	60	---	yes	---	---	---	---	---	---	---	---	---	---
531	60	60	12	8	---	---	---	---	10	400	60	---	---	---	---	---	---	---	---	---	---	---	---
532	60	60	9	9	---	---	---	---	10	325	60	---	---	---	---	---	---	---	---	---	---	---	---
533	60	60	20	20	---	---	---	---	10	580	60	---	---	---	---	---	---	---	---	---	---	---	---
534	60	60	8	8	---	---	---	---	10	350	60	yes	---	---	---	---	---	---	---	---	---	---	---
535	60	60	150	150	---	---	---	---	10	5,000	60	---	---	yes	yes	---	---	---	---	---	---	---	---
536	60	60	55	55	---	---	---	---	10	2,575	60	---	---	---	---	---	---	---	---	---	---	---	---
537	60	60	20	10	---	---	---	---	10	433	60	---	---	---	---	---	---	---	---	---	---	---	---
538	60	60	15	12	---	---	---	---	10	460	60	---	---	---	---	---	---	---	---	no	---	---	---
539	60	60	50	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
540	60	60	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
541	60	60	10	4	---	---	---	---	10	160	60	yes	---	yes	yes	yes	no	---	yes	yes	---	yes	---
542	60	60	6	4	---	---	---	---	10	160	60	---	yes	---	---	---	---	---	---	---	---	---	---
543	60	60	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
544	60	60	115	28	53	---	---	---	10	1,800	60	yes	no	yes	yes	yes	no	---	yes	yes	---	yes	yes
545	60	60	14	12	---	---	---	---	12	400	60	---	yes	---	---	---	---	---	---	---	---	---	---
546	60	60	12	8	---	---	---	---	10	400	60	---	---	---	---	---	---	---	---	---	---	---	---
547	60	60	15	5	---	---	---	---	10	165	60	---	---	---	---	---	---	---	---	---	---	---	---
548	60	60	6	2	---	---	---	---	10	80	60	---	---	yes	yes	---	---	---	---	---	---	---	---
549	60	60	150	25	---	---	---	---	10	1,400	60	---	---	---	---	---	---	---	---	---	---	---	---
550	60	60	80	29	---	---	---	---	10	1,200	60	---	---	---	---	---	---	---	---	---	---	---	---

* 144 hours; running night and day.

† Males 60, f-males 48 hours.

‡ 165 hours; running all the time.

Inspection book No. 12.

TABLE No. 2.—CONTINUED.—

No. given factory for 1895.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
551	Sept. 10	Lansing	Agricult'l College Machine Shops..	Machinery and tools.....	run.	full
552	" 11	Eaton Rapids	Wm. Smith	Lumber	idle	full
553	" 11	"	Wm. Smith	Dressed lumber	run.	full
554	" 11	"	La Fever Furniture Co.	Furniture	"	"
555	" 11	"	Eaton Rapids Woolen Mills	Yarn and cloth	"	"
556	" 11	"	T. M. Bissel Plow Co.	Plows	"	"
557	" 12	Homer	Cook Flour Bin Co.	Flour bins	idle	"
558	" 12	"	Electric Oil Stove Co.	Oil stoves	run.	full
559	" 13	Colon	Lamb Knit Goods Co.	Knit goods	"	"
560	" 13	Bellevue	C. L. Higgins	Lumber and cider	"	"
561	" 13	"	J. R. Hall	Sort beans	"	"
562	" 14	Charlotte	A. Berger	Cigars	"	"
563	" 16	Quincy	J. Livingston	Chairs	idle	"
564	" 16	"	Globensky Bros.	Cooperage	run.	full
565	" 17	Coldwater	Pratt Manufacturing Co.	Hand sleds	"	"
566	" 17	"	N. Harlow	Furniture	"	"
567	" 17	"	Coldwater Oil Stove Co.	Stoves	"	"
568	" 17	"	J. B. Hallenberg	Wood turning	"	"
569	" 17	"	A. J. Pierce	Cigars	"	"
570	" 17	"	O'Shaughnessy Bros.	"	"	"
571	" 18	"	Ball Bros.	Sash, doors and blinds	"	"
572	" 18	"	C. N. Johnson	Barrels	"	"
573	" 18	"	Wm. A. Coombs	Flour and feed	"	"
574	" 18	"	B. H. Calkins	Barrels	"	"
575	" 18	"	American Cigar Co.	Cigars	"	"
576	" 19	Sturgis	Sturgis Furniture Co.	Furniture	idle	full
577	" 19	"	J. H. Whitmer	Sash, doors and blinds	"	"
578	" 19	"	The Wait & Barnes Furniture Co..	Furniture	run.	full
579	" 19	"	Grubbier & Crooby Furniture Co.	"	"	"
580	" 19	"	Aulsbrook & Sturgis	"	"	"
581	" 20	White Pigeon	Sultan Buggy and Cart Co.	Buggies	"	"
582	" 20	Three Rivers..	Whitmore Air Purifier Co.	Purifiers	"	"
583	" 20	"	Roberts, Throp & Co.	Bean threshers	"	"
584	" 20	"	Sheffield Car Co.	Railway specialties	"	"
585	" 20	"	Three Rivers Paper Co.	Paper	"	"
586	" 20	"	Initial Toe Pad Co.	Toe pads	"	"
587	" 21	"	Three Rivers Robe Tannery	Robes	idle	full
588	" 21	"	Carl Klocke	Cigars	run.	full
589	" 21	"	L. J. Knauss	Harnesses	"	"
590	" 23	"	A. N. Hill	Barrels	"	"
591	" 23	"	Harris Milling Co.	Flour and feed	"	part
592	" 23	Cassopolis	Bunn & Hayden	Lumber	idle	"
593	" 23	Marcellus	Adjustable Seat Manufact'g Co.	School seats	"	"
594	" 24	Schoolcraft	American Photo Furniture Co.	Furniture	run.	full
595	" 25	Otsego	Otsego Chair Co.	Chairs	"	"
596	" 25	"	Bardeen Paper Co., Mill No. 1	Paper	"	"
597	" 25	"	Bardeen Paper Co., Mill No. 2	"	"	"
598	" 25	Plainwell	Michigan Paper Co.	"	"	"
599	" 25	"	Plainwell Church Furniture Co.	Furniture	"	"
600	" 26	Allegan	E. B. Born	Wagons	"	"

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
551	20	20	3	3					4	\$180	60	yes		yes	yes	yes	no		yes	no		yes	
552	60	50																					
553	60	25	25						10	900	60	yes		yes	yes	yes	no		yes	yes	yes		
554	60	18	6						10	220	60											yes	
555	60	10	10						10	340	60												
556	60	25	15						10	581	60	yes								no			
557	60	5																					
558	60	60	60						10	2,400	60	yes		yes	yes	yes	no		yes	yes	yes	yes	
559	59	90	32	58			2	no	10	2,135	60		no										yes
560	60	10	5						10	130	60									no			
561	60	20	4	8					10	210	60									yes			yes
562	60	6	6				1	no	8	240	60			yes	yes								
563	60	12																					
564	60	40	28						10	868	60	yes				yes	no		yes	yes		yes	
565	60	75	35						10	1,200	60		yes	yes	yes				yes	yes	yes		
566	60	20	18						10	531	60		no										
567	60	117	117						10	6,500	60										no		
568	60	12	12						10	435	60			yes	yes								
569	48	6	4						8	145	60												
570	48	6	6						8	290	60												
571	60	10	6						10	250	60	yes		yes	yes				yes	no	yes		
572	60	90	38						10	1,300	60		no							yes			
573	*	28	28						12	1,358	60		yes										
574	60	50	50						10	1,735	60										yes		
575	60	70	24	24					10	1,550	60		no	no									yes
576	60	50																					
577	60	10																					
578	60	125	125						10	3,688	60	yes	no	yes	yes	yes	no		yes	yes	yes	yes	
579	60	84	84						10	8,000	60												
580	60	80	80				2	no	10	2,500	60									no			
581	60	25	12						10	850	60												
582	60	12	7						10	360	60	yes							yes	no			
583	60	125	65						10	2,165	60		yes							yes	yes		
584	60	225	225						10	8,000	60												
585	*	50	22	3					11	1,080	60		yes										
586	60	40	15	5					10	866	60		no							no			yes
587	60	15																					
588	48	12	10						8	355	60	yes				yes	no					yes	
589	60	29	12						10	590	60	yes	yes	yes	yes				yes	yes			
590	60	20	3						10	120	60												
591	*	18	13						10	650	60	yes		yes	yes				yes	yes	yes		
592	60	20																					
593	60	20																					
594	60	10	4						10	105	60	yes				yes	no		yes	yes		yes	
595	60	125	100						10	2,350	60		yes	yes	yes				yes		yes		
596	+	187	103	84					10	4,557	60												yes
597	+	94	44	50					10	2,080	60												
598	+	44	29	15					10	1,300	60		no	no									
599	60	25	25						10	800	60			yes						no	yes		
600	60	20	5						10	250	60									yes			

* 144 hours; running night and day.
† 142 hours; running night and day.

Inspection book No. 13.

TABLE No. 2.—CONCLUDED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
601	Sept. 26	Allegan	Cook, Baker & Co.	Dressed lumber	run.	full
602	" 26	"	Oliver & Co.	Furniture	"	part
603	" 26	"	Allegan Paper Co.	Paper	idle	"
604	Oct. 12	St. Joseph	T. C. Prouty Co.	Door hangers	run.	full
605	" 17	Niles	Kompass & Stoll	Furniture	"	"
606	" 24	Jackson	Collins Mfg Co.	Carriage	"	"
607	" 24	"	The Michigan Corset Co.	Corsets	"	"
608	" 31	Clinton	Clinton Woolen Mfg Co.	Woolen goods	"	"
609	" 31	"	Clinton Plow Co.	Plows	"	"
610	" 31	Tecumseh	Tecumseh Table Co.	Tables	run.	part
611	" 31	"	Hereen Bros. & Co.	Hollow ware	"	full
612	Nov. 1	"	H. Brewer & Co.	Machinery	"	part
613	" 1	"	M. A. Zimmermann & Co.	Handles	"	full
614	" 11	Port Huron	The Herald	Newspaper	"	"
615	" 18	Jackson	Michigan State Prison	Wagons, brooms, etc.	"	"

DEDUCTIONS FROM TABLE NO. 2.

The Second Factory Inspection District is composed of the counties of

Allegan,	Eaton,	Livingston,	St. Joseph,
Barry,	Hillsdale,	Lenawee,	Sanilac,
Branch,	Ingham,	Macomb,	Van Buren,
Berrien,	Jackson,	Monroe,	Washtenaw.
Calhoun,	Kalamazoo,	Oakland,	
Cass,	Lapeer,	St. Clair,	

There were 615 factories inspected in this district during the year. The following shows the kind of goods manufactured, handled or sold, with the number of factories employed at the same.

Stoves and farm implements.	18	Lawn hose reels	1
Fruit evaporators	1	Leather	2
Machinery, etc.	42	Whips and whip lashes	2
Printed matter	36	Wool boots	2
Cigars	34	Brass goods, etc.	3
Sash, doors, blinds, etc.	38	Water tanks and bath tubs	2

District No. 2.

Geo. E. Gunn, Deputy Inspector.

No. given factory for 1895.		Hours, per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
601	60	60	15	25	---	---	---	---	---	10	\$840	60	yes	---	yes	yes	yes	no	---	yes	yes	yes	yes	---
602	60	48	32	15	---	---	---	---	---	10	850	60	yes	---	yes	yes	yes	---	yes	yes	yes	yes	---	
603	*	60	60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
604	60	60	7	7	---	---	---	---	---	10	225	60	---	---	yes	yes	yes	no	---	yes	yes	yes	yes	---
605	60	60	25	20	---	---	---	---	---	10	800	60	yes	---	yes	yes	---	---	---	yes	no	yes	yes	---
606	60	60	300	251	4	---	---	---	---	10	9,533	45	no	---	---	---	---	---	---	---	---	---	---	
607	60	60	60	7	30	---	---	---	---	10	885	60	---	---	---	---	---	---	---	---	---	---	---	
608	60	60	185	90	75	---	3	yes	---	10	5,000	60	yes	---	---	---	---	---	yes	---	---	---	---	
609	60	60	13	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
610	60	54	30	18	---	---	---	---	---	10	300	60	yes	no	yes	yes	yes	no	---	yes	yes	yes	yes	---
611	60	60	20	15	---	---	---	---	---	10	545	60	---	---	---	---	---	---	---	---	---	---	---	
612	60	48	50	30	---	---	---	---	---	10	1,300	60	---	---	---	---	---	---	---	---	---	---	---	
613	60	60	15	6	---	---	---	---	---	10	240	60	---	---	---	---	---	---	---	---	---	---	---	
614	60	60	12	10	2	---	---	---	---	10	520	60	---	---	yes	yes	---	---	---	---	---	---	yes	
615	---	---	---	---	---	---	---	---	---	---	---	60	no	---	yes	---	yes	---	yes	no	yes	---	---	

* 142 hours.

Pumps, windmills, etc.	10	School seats	2
Condensed milk	2	Furnaces	1
Wagons, carriages, sleighs, etc.	50	Gas	1
Wheelbarrows	1	Starch	1
Laundry work	18	Specialties	2
Knit goods, yarn and cloth	11	Soap and potash	2
Paper boxes	2	Muslin underwear	1
Flour and feed	35	Mirrors and ornamental glass	1
Window display fixtures, etc.	3	Pulp and paper	16
Vinegar	3	Garden tools and shovels	3
Furniture, chairs, etc.	33	Harnesses, horse goods, etc.	4
Creameries	1	Engine and car repairing	2
Pants and overalls	3	Mineral water	2
Wool mattresses	1	Packing eggs	1
Lumber, etc.	47	Repairing vessels	1
Baskets	3	Flax mill and prepared flax	2
Wood work and flour bins	8	Carpet looms	5
Sorting beans	1	Boilers	4
Fruit packages	3	Brooms	2
Blank books	1	Sorting rags	1
Spokes, wheels, etc.	6	Bicycles	2
Staves, heading, barrels, etc.	15	Hollow ware, castings, etc.	8
Bakers' goods and confectionery	7	Hay bale ties and door hangers	3
Beer	11	Boats and ships	2
		Cattle guards	1

Springs and axles.....	4	Railroad velocipedes.....	1
Wool goods and mackintoshes.....	3	Baskets.....	4
Plumbers' supplies.....	1	Carriage tops and wood work.....	4
Organs.....	1	Pills and granules.....	1
Curtain and picture fixtures.....	1	Albums and playing cards.....	2
Granite and marble.....	5	Elevators.....	1
Tags and labels.....	1	Sheet iron goods.....	1
Featherbone, corsets and stays.....	11	Printing presses.....	1
Handles.....	4	Artificial stone.....	1
Sewer pipe, brick and tile.....	10	Railway cars.....	1
Cheese and butter.....	3	Elevating grains.....	1
Ropes and cordage.....	1	Sulphite fibre and fibre gar-	
Paving blocks and poles.....	1	ments.....	3
Binders boards.....	1	Salt.....	4
Wire fence.....	1	Wash boards and wood turning.....	2
Repairing cars and engines.....	1	Boot and shoe lasts.....	1
Telephones.....	1	Electricity.....	8
Gold, silver and nickel plating.....	2	Band and military supplies.....	1

Whole number of factories.....	615
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Number of factories running.....	555
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Number of factories idle.....	60
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Whole number of factories inspected.....	615
--	-----

Number of factories running full time.....	511
--	-----

Number of factories running part time.....	43
--	----

Number that do not answer.....	1
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Whole number of factories running.....	555
--	-----

It will be seen from the above that about 10 per cent of the factories in this district are idle, and of those running, a little over 92 per cent are running full time.

RELATIVE TO HOURS PER WEEK.

Number running 168 hours per week.....	4
Number running 156 hours per week.....	1
Number running 152 hours per week.....	1
Number running 144 hours per week.....	17
Number running 142 hours per week.....	3
Number running 132 hours per week.....	1

Whole number running double force.....	27
--	----

Number running overtime.....	5
Hours per week when running full time.....	39,519
Hours per week at present.....	34,759
Loss in hours per week.....	4,760

Reduced to days this means a daily loss of 79 days, 476 days each week, 2,054 days each month, 24,648 days in a year. Computed at \$1.30 per day, the average paid employes in this district, and we find a daily loss of \$102.70, a weekly loss of \$618.80, a monthly loss of \$2,670.20, an annual loss of \$32,042.40.

Average hours per week when running full time.....	64½
Average hours per week for those running at present.....	62½

A glance at the table will show that many factories require more than ten hours per day for a day's work, and that a large number do not run ten hours, the high average for a day's work being by reason of the factories which run all the time.

RELATIVE TO NUMBER EMPLOYED.

Total number employed when running full capacity.....	25,941
Total number employed at present.....	20,024
Loss as compared when running full capacity.....	5,917
Number of males employed at present.....	16,388
Number of females employed at present.....	3,636
Whole number employed at present.....	20,024

These figures show that these factories are running with an average of of about 23 per cent less than full capacity.

Here is a loss to labor of 5,917 persons, which computed at \$1.30 per day means a daily loss of \$7,692, a weekly loss of \$46,152, a monthly loss of \$199,994, or an annual loss of \$2,399,935. This added to the 32,040 lost by running short time makes an annual loss in this district of \$2,431,975 to what it would be if those factories were running full capacity and full time.

As might be expected, the number of males greatly exceeds the number of females, but the latter are well represented, they being over 18 per cent of the whole number employed at present.

There are 157 factories that employ females, while males work in all but two.

CHILD LABOR.

Number that employed children under fourteen years of age.....	7
Number of children employed under fourteen years of age.....	19

The number of factories found that employed children under fourteen years of age was less than was expected. All such children were ordered discharged immediately.

Number of factories that employ children over 14 and under 16..	37
Number of such children employed.....	145
Number of male children employed under 16.....	112
Number of female children employed under 16.....	33
Whole number of children employed between 14 and 16....	145

Number that keep register and statements on file for children employed.....	10
Number that do not keep such register and statements.....	19
Number who do not answer.....	8
Whole number employing children under 16.....	37

Average number hours per day required of females under 21 and males under 18 years of age.....	9
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In all cases where registers were not kept and statements not filed orders to that effect were given, with the assurance that the law would be complied with. As this section of the law is more fully understood, employers more readily comply with it.

Manufacturers as a rule are willing to assist in carrying out the provisions of the law prohibiting and restricting child labor. The inspector in this district found but little trouble in this direction.

The law prohibiting females under 21 or males under 18 from cleaning machinery while in motion is well observed in this district, only one such factory being reported. About 14 per cent of those inspected do not answer this question, but they are evidently factories that do not employ this class of labor.

RELATIVE TO WAGES.

Number that say wages have been increased since Jan. 1, 1894.....	35
Number that say wages have been reduced since Jan. 1, 1894.....	12
Number that say wages have not been increased nor reduced since Jan. 1, 1894.....	508
Total number of factories running.....	555
Number that give per cent of decrease.....	12
Number that give per cent of increase.....	34
Average decrease.....	11 per cent.
Average increase.....	11½ per cent.

These statistics show that wages have remained nearly the same during the past year. A little over 6 per cent of the factories have increased wages, while about 2 per cent have reduced wages during the year.

Aggregate of monthly pay rolls.....	\$670,717
Average monthly pay roll.....	1,235
Average per month for each employé.....	\$33 80

DINNER HOUR.

Number of factories that allow 60 minutes for dinner.....	527
Number of factories that allow 50 minutes for dinner.....	12
Number of factories that allow 45 minutes for dinner.....	6
Number of factories that allow 40 minutes for dinner.....	1
Number of factories that allow 30 minutes for dinner.....	5
Number not answering.....	4
Total number of factories running.....	555

About 96 per cent allow a full hour for dinner; about 2 per cent, 50 minutes; while 1 per cent allow the lowest limit of the law, 45 minutes. For special reasons, six have been given permission by the inspector to allow less than 45 minutes for dinner.

HOISTING SHAFTS AND ELEVATORS.

Number that have hoisting shafts and well holes, properly enclosed and secured.....	497
Number that do not answer.....	58
Whole number of factories running.....	555

Number that have automatic trap doors or gates provided in all floors where elevators are used.....	84
Number that do not have such doors or gates.....	79
Number that do not answer.....	392
Whole number of factories running.....	555

STAIRS.

Number that have stairs properly protected.....	382
Number that do not have stairs properly protected.....	26
Number that do not answer.....	147
Whole number of factories running.....	555

Number that have stairs properly screened.....	400
Number that do not have stairs properly screened.....	8
Number that do not answer.....	147
Whole number of factories running.....	555

It will be noticed that a large number of factories do not answer these questions. These are factories where the questions do not apply, *i. e.* one story buildings, etc. Where changes were ordered, owners and lessees were usually willing to comply with the law.

DOORS.

Regarding the matter of doors swinging outward or sliding, the inspector found but one factory running where a change was necessary.

Only two factories were found where doors were locked or bolted during working hours, and this practice was ordered discontinued in these.

FIRE ESCAPES.

Only a small per cent of these factories are of a character that need fire escapes. Eighteen were found to be fully equipped, and on seventeen others fire escapes or other safety appliances were ordered.

MACHINERY, ETC.

Number that have proper shifters in use for throwing belts on or off pulleys, and where possible loose pulleys provided.....	476
Number that do not have such shifters and pulleys.....	14
Number that do not answer.....	65
Whole number of factories running.....	555

These factories not answering were among those not using machinery where such devices were applicable.

Number that have vats, pans, saws, cogs, belting, gearing, shafting, set screws and machinery properly guarded.....	387
Number that do not have such fixtures properly guarded.....	89
Number that do not answer.....	79
Whole number of factories running.....	555

Again the factories not answering are those where machinery is not used.

DUST ARRESTERS.

About 79 per cent of the factories which were running did not need exhaust fans or blowers for carrying off dust. Of those that did need such blowers, about 17 per cent were so equipped. Such appliances were ordered on others.

SANITARY.

Almost every place was provided with suitable wash rooms and water closets, only one factory was found where such sanitary measures were neglected.

Regarding separate and proper closets for females, only four factories which were running lacked this necessary improvement. An immediate remedy was promised for these factories.

REMARKS.

By these deductions it will be seen that the law in this district was generally complied with, and that where non-compliances were found an obedience to the law was promised.

Following this is a list of the changes ordered and the accidents reported for the year. The factories can be found by a corresponding number in the table. A study of the table and comparisons will be of interest to manufacturers and their employes.

CHANGES ORDERED DURING YEAR.

DISTRICT NO. 2.

[The number refers to the inspection number in table.]

- No. 1.—Ordered guard for belt on tapering roll machine in blacksmith shop; guard cog gearing on four drill presses in machine shop; exhaust fan for stove polishing room; one fire escape on west side of four story building, and to furnish better means of escape from wood pattern shop.
- No. 2.—Ordered statements filed with name and age of the child employed.
- No. 4.—Guard for belt on emery wheel; trap door for elevator, and separate closet for females ordered.
- No. 5.—Automatic gates for elevator ordered.
- No. 9.—Ordered guard for belt on planer on ground floor; handrail for stairs from ground to second floor, and automatic gates for elevator.
- No. 10.—Guards for cog gearing, and set screw on bull lathe in machine shop ordered.
- No. 11.—Required automatic gates for elevator, and handrail for stairs.
- No. 12.—Ordered automatic gates for three elevators, and another pair of stairs from tin shop.
- No. 13.—Ordered guard placed on rip saw in wood shop.
- No. 16.—Ordered line shaft guarded under table in knitting room, and one handrail
- No. 17.—Ordered automatic gates for elevator.
- No. 18.—Ordered automatic gates for elevator; one handrail; one fire escape on south side of building, and statements filed with name and age of children employed under 16 years.
- No. 21.—Ordered automatic gates for elevator.
- No. 22.—Ordered guards for counter shaft, belt on planer and counter shaft of rip saw in west end of machine room, and statements filed of all children employed under the age of 16 years.
- No. 23.—Ordered railing for side of elevator on ground floor in wood shop; guard for belt on engine in blacksmith shop, and automatic gate for elevator in trimming department.
- No. 26.—Ordered guards for one rip saw and planer belt on north side.

- No. 27.—Automatic gates for elevator, and guard on side of planer belt ordered.
- No. 29.—Required handrail for stairs to workroom, and automatic gates for elevator.
- No. 30.—Handrail for stairs leading to press room, and automatic gates for elevator ordered.
- No. 33.—Guard for main drive belt in engine room ordered.
- No. 37.—Ordered bevel cog gearing on water wheel, and set screws guarded on shaft from the same.
- No. 46.—Guards ordered on main drive belt and line shaft.
- No. 49.—Ordered main line shaft from engine to flour mill boxed in.
- No. 55.—Ordered one window opened; stairs from third floor to roof of engine room, and a better system of exhaust fans.
- No. 56.—Guard on side of main belt in lower part of mill ordered.
- No. 60.—Required automatic trap for elevator.
- No. 61.—Ordered main line shaft boxed.
- No. 71.—Ordered counter shaft and belts on planer guarded, and automatic gates on second floor for elevator.
- No. 72.—Ordered set screws removed, and counter shaft covered on small planer.
- No. 77.—Ordered crank on main shaft boxed in.
- No. 82.—Ordered six large belts from line shaft to dynamos guarded.
- No. 86.—Ordered statements placed on file with names and ages of children employed under 14 years.
- No. 92.—Ordered trap door for elevator.
- No. 93.—Automatic gates for elevator ordered.
- No. 94.—Ordered one boy sent home who was under 14 years of age, also ordered automatic gate for elevator.
- No. 99.—Required automatic gate on elevator.
- No. 103.—Ordered two children under the age of 14 discharged; notices posted and statements filed with names and ages of all children under 16 years.
- No. 104.—Ordered protection for elevator, and main belt boxed in.
- No. 108.—Set screws ordered covered on line shaft.
- No. 110.—Automatic gates for elevator ordered.
- No. 116.—Ordered automatic gates for elevator.
- No. 125.—Cog gearing and set screws ordered guarded.

- No. 126.—Required automatic traps for elevator.
- No. 130.—Automatic gates for elevator and handrail for stairs ordered.
- No. 131.—Ordered statements filed of all children employed under the age of 16 years.
- No. 139.—Ordered exhaust fans for emery wheel.
- No. 144.—Ordered set screw covered on sprocket wheel on conveyer.
- No. 146.—Automatic gates for elevator ordered.
- No. 151.—Required one fire escape on the north side of the five story part of factory, and automatic gates for two elevators.
- No. 152.—Exhaust fans for emery wheel ordered.
- No. 153.—Ordered counter shaft on planer guarded.
- No. 156.—Ordered railing in front of dynamos and generator, and hardwood railing on side of belts from main shaft to dynamos.
- No. 157.—Ordered counter shaft in lower part of mill guarded.
- No. 159.—Automatic gates for elevator on second floor required.
- No. 161.—Ordered one boy sent home under the age of 14 years, and one handrail for stairs. They have let the contract for a fire escape.
- No. 162.—Ordered vertical water wheel shaft and pulley guarded.
- No. 168.—Ordered exhaust fans for wood shop; set screws covered on main shaft in basement; guard on side of main drive belt in engine room, and statements placed on file of all children employed under the age of 16 years.
- No. 169.—Ordered one fire escape on south side of building.
- No. 171.—Ordered one child discharged, under 14 years of age.
- No. 172.—Ordered handrail for stairs in handle room; exhaust fans for wood shop, and guards on side of striker belt and main belt in saw mill.
- No. 173.—Ordered main belt in engine room and main belt and set screws on planer, guarded.
- No. 176.—Automatic bars on elevator ordered changed to gates.
- No. 182.—Ordered one fire escape on west side and south of center of factory.
- No. 184.—Ordered one fire escape on the west side and in the center of the four story building.
- No. 189.—Automatic gates for elevator ordered.
- No. 191.—Ordered key on shaft and main belt of small engine guarded.
- No. 214.—Ordered guard in front of band saw.

- No. 218.—Handrail on stairs and guard on side of planer belt required.
- No. 220.—Guard for shaper belt ordered.
- No. 221.—Required one fire escape on south side of building.
- No. 232.—Ordered main belt guarded in engine room.
- No. 234.—Handrail for stairs; exhaust fans for emery wheels, and buffers for polishing room required.
- No. 236.—Exhaust fans for sanders in wood shop and emery wheels in polishing room ordered.
- No. 240.—Ordered the guards which were put on sides of belts last year made stronger, and key on pump shaft made shorter and guarded.
- No. 247.—Ordered one boy under the age of 14 years discharged.
- No. 250.—Cog gearing on planer ordered guarded.
- No. 260.—Ordered walk between office and factory and bridge from windows of main workroom to roof of store room repaired, and one fire escape on the front side of building.
- No. 267.—Automatic gate for elevator on third floor, and one fire escape on south side of east work room ordered.
- No. 272.—Ordered line shaft guarded in room up stairs, and automatic gates for elevator.
- No. 275.—Exhaust fans for emery wheels in grinding room; guard for cog gearing on one drill press, and automatic gates for elevator required.
- No. 277.—Guard for cog gearing on sander ordered.
- No. 282.—Ordered cog gearing and set screws guarded on counter shaft of pulp machine.
- No. 284.—Ordered belt and pulley on counter shaft of spoke tenoner guarded.
- No. 286.—Elevator gates order repaired on second floor.
- No. 287.—Automatic gates for elevator ordered.
- No. 288.—Ordered belts guarded which run from dynamos to main shaft.
- No. 291.—Exhaust fans in wood shop ordered repaired.
- No. 294.—Automatic gates for elevator required.
- No. 299.—Ordered automatic trap doors for elevator.
- No. 300.—Required automatic gates for elevator.
- No. 307.—Ordered statements placed on file of all children under the age of 16 years, and automatic gates for second and third floors of elevator.

- No. 310.—Ordered statements filed of all children employed under 16 years of age.
- No. 316.—Ordered automatic gates for two elevators; cable on small elevator in store room and stairs leading to same repaired, and exhaust fans for emery wheels in grinding room.
- No. 318.—Automatic gates for elevator required.
- No. 321.—Ordered handrail on stairway and automatic gates for elevator.
- No. 328.—Ordered the end of counter shaft on large planer boxed in,
- No. 331.—Cog gearing on one drill press required guarded.
- No. 337.—Ordered line shaft in machine room boxed in.
- No. 344.—Ordered line shaft which runs through dynamo room boxed in.
- No. 349.—Line shaft to tile machine required guarded.
- No. 354.—Ordered drive belt guarded on side next to beater.
- No. 361.—Ordered statements filed of all children employed under the age of 16 years.
- No. 366.—Ordered automatic gates for elevator; cog gearing guarded on each side of sanders, and belt on shaper boxed in.
- No. 368.—Eleven boys under the age of 14 years ordered home, and statements placed on file with names and ages of all children employed under 16 years of age.
- No. 370.—Ordered shifter and guard on sticker belt.
- No. 379.—Ordered main drive belt guarded on the side.
- No. 381.—Ordered shifter on feed mill belt.
- No. 396.—Automatic gates for elevator in shipping room ordered.
- No. 397.—Ordered exhaust fans for emery wheels in casting room, and closets cleaned and repaired.
- No. 399.—Line shaft in engine room ordered boxed in.
- No. 400.—Automatic gate for elevator ordered.
- No. 405.—Required planer belt guarded and provided with shifter.
- No. 406.—Ordered walk repaired over belt from fly wheel to large pulley; guard in front of large pulley, and railing on side of belt from main line shaft to roller mill next to stairs in lower part of mill.
- No. 407.—Ordered guards in front of drive wheels and walks over drive belts repaired.
- No. 417.—Required automatic gates for elevator and exhaust fans for emery wheel.
- No. 420.—Automatic gates for elevator ordered.

- No. 423.—Ordered set screws removed or guarded on main line shaft in lower part of mill.
- No. 425.—Required automatic gates for elevator.
- No. 429.—Two emery wheels in machine room ordered connected with exhaust fans.
- No. 436.—Ordered counter shaft up stairs boxed in; handrail on stairs, and main planer belt guarded on side.
- No. 438.—Required guards on sides and in front of equalizer saws.
- No. 441.—Ordered belts from line shaft to dynamo guarded.
- No. 445.—Shifter on main planer belt, and guard on side belt ordered.
- No. 447.—Ordered statements filed of all children employed under the age of 16 years.
- No. 448.—Automatic gates for elevator ordered.
- No. 460.—Counter shaft ordered boxed in on cut off saw.
- No. 463.—Ordered cog gearing on planer guarded, and counter shaft and belt on same planer boxed in.
- No. 465.—Automatic gates for elevator required.
- No. 470.—Ordered set screws and counter shaft in band saw room boxed in.
- No. 471.—Automatic gates for elevator and railing on side of same on upper floor ordered.
- No. 482.—Required fire escape on west side of factory, and guard on side of main belt in engine room.
- No. 483.—Ordered counter shaft of sander and counter shaft of rip saw boxed in; belt provided with shifter; guards in front of balance wheel, on side of drive wheel in engine room and inside of planer belt, and handrail for stairway.
- No. 484.—Ordered handrail for stairs on second floor.
- No. 485.—Handrail for stairway required.
- No. 486.—Automatic gates for elevator, guards on side of main belt and on sander belt ordered.
- No. 499.—Ordered one fire escape on west side of building; automatic gates for elevator, and statements placed on file of all children employed under the age of 16 years.
- No. 502.—Automatic gate for elevator in store room ordered.
- No. 503.—Ordered one fire escape on west side of building.
- No. 504.—Automatic gates for elevator required.

- No. 506.—Ordered cut off saw and counter shaft outside of mill guarded.
- No. 513.—Separate closets for females ordered.
- No. 518.—Required one fire escape on east side of building, and during working hours doors to be unlocked.
- No. 519.—Ordered main drive belt and seven belts running from line shaft guarded on both sides.
- No. 520.—Required two belts and two pulleys on paper rolls guarded.
- No. 521.—Ordered one exhaust fan; one fire escape on front of factory; shifters for belts on planer and flooring machine, and pulley and counter shaft on jointer boxed in.
- No. 522.—Belts on side of planer and flooring machine required guarded.
- No. 524.—Handrail for stairs and separate closet for females ordered.
- No. 526.—Required line shaft guarded on both sides to prevent employees from passing under it.
- No. 528.—Separate closet ordered for females.
- No. 535.—Ordered two boys discharged under 14 years of age, and registers kept of all children employed under the age of 16 years.
- No. 536.—Ordered statements filed of all children employed under 16 years of age.
- No. 538.—Ordered counter shaft on cut off saw and counter shaft on small planer guarded.
- No. 544.—Automatic trap door for elevator required.
- No. 551.—Ordered band saw guarded on top and bottom in front of wheels; also main belt guarded on both sides, and counter shaft and belts of rip saw boxed in.
- No. 556.—Required grind stones guarded in grinding room.
- No. 558.—Ordered exhaust fan pipes kept clean and two repaired.
- No. 559.—Ordered automatic gates on upper floor for elevators and statements placed on file of all children under 16 years of age.
- No. 560.—Main belt required to be guarded on side.
- No. 562.—Ordered statements filed of all children under the age of 16 years.
- No. 566.—Automatic gates for elevator ordered.
- No. 567.—Exhaust fans for emery wheels in grinding room required.
- No. 571.—Ordered cog gearing on sander guarded.
- No. 575.—Handrail for stairs and automatic gates for elevator ordered.

- No. 578.—Automatic gates for elevator in shipping room required.
- No. 579.—Ordered automatic gates for elevator.
- No. 580.—Place automatic gates for elevator and splitter on rip saw in machine room.
- No. 582.—Ordered main belt guarded on side in engine room and planer belt guarded.
- No. 586.—Required automatic gates for elevator in shipping room, and line shaft in workroom boxed in on east end.
- No. 598.—Ordered automatic gate for elevator on first floor, and handrail on stairs to room where rags are sorted.
- No. 599.—Sander belt required guarded on side.
- No. 605.—Ordered main belt guarded in front of fly wheel.
- No. 606.—Automatic gates for two elevators ordered.
- No. 610.—Ordered automatic gate on second floor for elevator.
- No. 615.—Ordered end of counter shaft on large planer removed in wagon shop; two rip saws in wagon shop guarded; railing around fly wheel and belts of engine in laundry; line shaft in bicycle shop boxed in, and automatic gates for elevators in laundry and broom shop, also for main elevator.

ACCIDENTS REPORTED DURING YEAR

DISTRICT NO. 2.

[The number refers to the inspection number in table.]

- No. 9.—July 26, 1895. M. Drabart, age 40, married, employed as laborer for Lansing Lumber Co., was disabled for three days by being caught on line shaft through carelessness. Received no wages during time disabled.
- No. 9.—January 8, 1895. W. G. Brown, age 35, married, employed as foreman by Lansing Lumber Co., lost one thumb. Was disabled fourteen days and received wages while disabled.
- No. 13.—August 3, 1895. Frank Ennis, age 34, employed as machine hand by Lansing Wagon Works, lost two fingers of right hand on rip saw, through carelessness.
- No. 14.—March 2, 1895. J. E. How, age 40, employed on rip saw by the Lansing Wheelbarrow Works, lost one thumb. Was disabled fourteen days and received wages in full during time disabled.
- No. 15.—December, 1894. Mrs. Steere, age 40, married, employed at mangle work by the Star Laundry, was disabled for two months by the loss of three fingers. Doctor's bill and wages paid during time disabled.
- No. 21.—March 2, 1895. E. Block, married, employed by Genesee Fruit Co., Lansing, fell through a man hole into a vinegar tank and was drowned. Burial expenses paid by the company.
- No. 22.—January 25, 1895. Clint Whitters, age 23, employed as machine hand for Potter Manufacturing Co., Lansing, was disabled for two months by having two fingers cut off on jointer. Doctor's bill paid by the company.
- No. 22.—March 3, 1895. E. Musser, age 21, employed as machine hand, by Potter Manufacturing Co., Lansing, had end of one thumb cut off on jointer. Was disabled one month. Doctor's bill paid by company.
- No. 81.—April 20, 1895. Harl Hoadley, age 28, employed as machine hand by Syms & Dudley, Watervliet, had arm crushed by falling in paper rolls. Was disabled thirty days and received wages during time disabled.
- No. 144.—January 20, 1895. Fred Wilson, age 30, employed as oiler by the Merrill Millington Co., Kalamazoo, lost one arm by being caught on set screw and drawn under endless chain. Was disabled two months and received no wages during time disabled.

- No. 157.—April, 1895. L. Cotten, age 35, employed as mill hand by Sunfield Manufacturing Co., Sunfield, was caught on unguarded shaft and badly bruised. Was disabled for one week.
- No. 165.—March, 1895. C. Cover, age 30, employed as rip sawyer by Dolson & Sons, Charlotte, was disabled for fourteen days by having a board thrown from rip saw. Did not receive wages during time disabled.
- No. 188.—April 20, 1895. John Smith, age 50, single, employed as carpenter by Botsford Paper Mill Co., Kalamazoo, lost one thumb. Was disabled fourteen days. Received no wages during time disabled.
- No. 220.—April, 1895. Ed Otis, married, employed as machinist by Advance Threshers' Co., Battle Creek, through carelessness lost one finger in cogs of drill press. Received no wages for time disabled.
- No. 259.—February 25, 1895. James M. Thomas, age 50, married, employed as machine hand by Aspinwall Manufacturing Co., Jackson, was disabled for three weeks by losing one finger on jointer. Received wages during time disabled.
- No. 289.—December 23, 1894. P. T. Winchell, age 50, married, employed as blacksmith by Fuller Buggy Co., Jackson, was killed in trying to get on the elevator after it had started up. He was caught between the elevator and floor. Burial expenses paid by the company.
- No. 328.—July 3, 1895. A. D. Stuck, age 50, married, employed as carpenter by Ypsilanti Lumber Company, lost two fingers on cut off saw.
- No. 384.—April 6, 1894. Peter Neckel, son of proprietor, married, age 36, employed as miller at Newport mills, Newport, lost one leg by being caught in feed mill belt. Was disabled six weeks.
- No. 397.—July 20, 1895. Frank Aldrich, age 40, married, employed as machine hand by Adrian Furniture Manufacturing Co., Adrian, lost one thumb on buzz planer. He received no wages during time disabled.
- No. 483.—August 15, 1895. Wm. Montrose, age 40, married, had his right arm crushed in balance wheel, through carelessness. Not an employé.
- No. 526.—August 2, 1895. O. Reed, age 19, single, employed as machine hand by James Livingston & Co., Croswell, lost one finger on right hand through carelessness. Received wages during time disabled.
- No. 578.—August 20, 1895. John Kribs, age 20, single, employed as machine hand by Wait & Barnes Furniture Co., Sturgis, lost one thumb on planer. Did not receive wages while disabled.
- No. 580.—September 1, 1895. J. Rohn, age 17, employed by Aulsbrook & Sturges, Sturgis, was killed by being struck in side by board flying from rip saw.

THIRD DISTRICT.

SUMMARY OF WORK IN THIRD INSPECTION DISTRICT.

OFFICE OF DEPUTY INSPECTOR, }
Grand Rapids, December 23, 1895. }

HON. CHARLES H. MORSE,

Commissioner of Labor, Lansing, Mich.:

DEAR SIR—In compliance with instructions from you dated November 30, 1895, I hand you herewith a report of my work as Factory Inspector, since the the law went into effect, September 1, 1893, together with the changes ordered and compliances reported, also a brief explanation of the work. The following table shows in condensed form the work as done by me:

Table showing factory inspection in third district since September 1, 1893.

Kinds of changes ordered.	1893.		1894.		1895.	
	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.
Fire escapes.....	22	10	18	12	17	11
Elevators guarded.....	31	18	29	19	31	21
Separate closets.....	10	3	14	9	15	8
Guards for belts.....	28	14	27	18	42	18
Guards for cogs, fly wheels, set screws, etc.....	46	28	52	24	79	33
Handrails and other stair protection.....	29	18	30	42	50	17
Blower systems.....	23	9	19	9	6	3
Doors changed to swing outward.....	18	11	5	4	2	3
Blower extensions.....	9	2	14	5	9	2
Better sanitary conditions.....	2	1	10	6	2	2
Children under fourteen ordered discharged.....	8	8	15	15	20	20
Miscellaneous changes.....	10	7	15	10	18	10
Total changes and compliances.....	241	128	319	170	300	147

Whole number of factories inspected in 1893.....	583
Whole number of factories revisited in 1893.....	100
Whole number of factories inspected in 1894.....	935
Whole number of factories revisited in 1894.....	238
Whole number of factories inspected in 1895.....	726
Whole number of factories revisited in 1895.....	401
Whole number of inspections since September 1, 1893.....	2,244
Whole number of revisits since September 1, 1893.....	739
Whole number of changes ordered since September 1, 1893....	869
Whole number compliances reported since September 1, 1893..	445

Some of the territory assigned to me in 1893 was subsequently given to other inspectors, and as a result, some of my first inspections were not revisited by me, but were attended to by the others.

The work of 1895 has been done with better method and the result is more satisfactory. The district as formed at present is much better arranged, the principal points being easy of access.

But few cases have been found where it was necessary to resort to law for the enforcement of orders, and in every case the matter was settled out of court. As the law is better understood by the manufacturers, the work is less difficult for the inspector.

In the work for the coming year still better results can be expected, as experience is of great benefit to the inspector, the manufacturer, and the State.

Very respectfully,

LOUIS C. F. HINTZ,
Deputy Inspector.

Inspection book No. 1.

TABLE No. 3.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
1	Apr. 8	Grand Rapids	Telfer Spice Co.....	Spices.....	run.	full
2	" 8	"	T. Ranville.....	Belted and fly netting.....	"	"
3	" 8	"	Kelly Shirt Co.....	Shirts.....	"	"
4	" 8	"	Grand Rapids Wood Carving Co....	Furniture ornaments.....	"	"
5	" 8	"	Barlow Bros.....	Blank books, etc.....	"	"
6	" 8	"	Loomis & Onderdonk.....	Job printing.....	"	"
7	" 9	"	Chas. A. Coxe.....	Awnings and tents.....	"	"
8	" 9	"	C. J. Bronson.....	Bicycle repairs.....	"	"
9	" 9	"	E. D. Fuller.....	Job printing.....	"	"
10	" 9	"	W. G. Coxe.....	Photographs.....	"	"
11	" 9	"	Grand Rapids Printing Co.....	Job printing.....	"	"
12	" 9	"	Hirth, Kraus & Co.....	Shoe uppers.....	"	"
13	" 10	"	Grand Rapids Lithographing Co....	Lithogr'g & book bind'g.....	"	"
14	" 10	"	Consolidated Street R'y Co.....	Electric power & repairs.....	"	"
15	" 10	"	Nelson Matter Furniture Co.....	Furniture.....	"	part
16	" 11	"	Hearth & Hall.....	Society journal.....	"	full
17	" 11	"	Merveune & Davis.....	Printed matter.....	"	"
18	" 11	"	The Arbitrator.....	Labor journal.....	"	"
19	" 11	"	Josiah J. Biggs.....	Upholstered furniture.....	"	"
20	" 11	"	Butterworth & Lewis.....	Machinery.....	"	"
21	" 12	"	Mills & Lacey Manufacturing Co....	Embalming fluid.....	"	"
22	" 12	"	Brobet & Himes.....	Boilers and stacks.....	"	"
23	" 12	"	Michigan Vapor Stove Co.....	Vapor and gas stoves.....	"	"
24	" 12	"	Mueller & Slack Co.....	Upholstered furniture.....	"	"
25	" 12	"	Hayman & Co.....	Show cases, etc.....	"	"
26	" 13	"	Champion Cash Register Co.	Cash registers.....	"	"
27	" 13	"	John J. Koke & Co.....	Fishing rods.....	"	"
28	" 13	"	Neal & Wells.....	Electroplating.....	"	"
29	" 13	"	Monitor Vapor Engine & Power Co.	Vapor engines & launches.....	"	"
30	" 13	"	Jas. J. Anderson & Co.....	Furniture ornaments.....	"	"
31	" 13	"	Egbert Wonnink.....	Wood turning and carv'g.....	"	"
32	" 15	"	B. W. Fish.....	Novelty turning.....	"	"
33	" 15	"	E. J. Hamilton.....	Photographs.....	"	"
34	" 15	"	Elliot Button Fastener Co.....	Button fasteners.....	"	"
35	" 15	"	Grand Rapids Electrotype Co.....	Electrotyping.....	"	"
36	" 15	"	Grand Rapids Electroplating Co....	Electroplat'g & polish'g.....	"	"
37	" 15	"	Groskopf Bros.....	Trunks and valises.....	"	part
38	" 16	"	Peninsular Brass Co.....	Brass castings.....	"	full
39	" 16	"	Bissell Carpet Sweeper Co.....	Carpet sweepers.....	"	"
40	" 16	"	Adolph Leifelt Iron Works.....	Boilers and machinery.....	"	"
41	" 16	"	New England Furniture Co.....	Furniture.....	"	"
42	" 18	"	Union Bakery.....	Bread and pastry.....	"	"
43	" 18	"	A. Levi.....	Men's clothing.....	"	"
44	" 18	"	Valley City Milling Co.....	Flour and feed.....	"	"
45	" 18	"	Globe Mills.....	" " ".....	"	"
46	" 18	"	Grand Rapids Edge Tool Co.....	Edge tools.....	"	"
47	" 19	"	Grand Rapids Cigar Co.....	Cigars.....	"	"
48	" 19	"	Willibald Voss.....	Harnesses.....	"	"
49	" 19	"	Goshen Sweeper Co.....	Carpet sweepers.....	"	"
50	" 20	"	Alexander Dodds.....	Special machinery.....	"	part

THIRD ANNUAL REPORT.

129

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age?	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shafts used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
1	80	80	8	7	1				10	\$407	80	yes	no	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
2	80	80	8	15	5		1	no	10	800	80	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
3	80	80	8	3	5				10	265	80	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
4	80	80	16	16	16				10	800	50	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
5	80	80	28	13	11				10	1,000	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
6	59	59	10	8	2				10	400	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
7	80	80	13	6	6				10	300	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
8	80	80	3	2	1				10	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
9	59	59	7	2	1				10	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
10	54	54	10	2	2				9	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
11	59	59	4	4	2				10	175	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
12	80	80	3	1	1				10	130	80	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
13	59	59	30	12	4				10	11,000	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
14	80	80	48	48	1		1	no	10	2,280	50	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
15	48	48	325	173	3	1	3	yes	10	6,500	50	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
16	59	59	2	2					10	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
17	59	59	2	3					10	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
18	59	59	4	2					10	300	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
19	80	80	7	4					10	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
20	59	59	50	33					10	1,400	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
21	54	54	7	7					9	600	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
22	80	80	15	11					10	400	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
23	80	80	65	39	1		1	yes	10	1,240	50	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
24	80	80	40	28	2				10	1,000	50	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
25	80	80	15	12					10	500	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
26	80	80	40	5	5				10	400	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
27	80	80	15	6	3				10	250	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
28	80	80	8	3					10	180	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
29	80	80	26	25	1				10	900	50	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
30	80	80	11	4					10	275	50	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
31	80	80	7	7					10	150	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
32	80	80	8	2					10	150	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
33	80	80	8	2	2				10	200	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
34	59	59	28	25	3				10	1,700	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
35	80	80	8	8		1			10	825	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
36	80	80	23	8	1	1	1	no	10	275	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
37	80	80	11	5					10	175	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
38	80	80	8	3					10	100	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
39	80	80	840	178	22				10	5,500	50	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
40	80	80	90	61					10	2,400	50	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
41	80	80	250	248	2		4	yes	10	12,000	50	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
42	80	80	6	6					10	800	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
43	80	80	5	2	2				10	200	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
44	72	72	25	25					10	1,707	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
45	72	72	6	6					10	293	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
46	80	80	14	1					10	375	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
47	48	48	4	1					10	170	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
48	80	80	10	3					10	107	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
49	80	80	80	45	5				10	1,470	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
50	48	48	15	8					10	225	80	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

* Permit given by inspector.

Inspection book No. 2.

TABLE No. 3.—CONTINUED.—

No. given factory for 1905.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
51	Apr. 20	Grand Rapids	Union Foundry Co.	Gray iron & brass cast'gs	run.	full
52	" 20	"	Ball Bearing Axle Co.	Ball bearing axles	"	"
53	" 20	"	Joseph Rowland	Ground feed	"	"
54	" 20	"	Z. E. Allen	Furniture and fruit p'k'gs	"	"
55	" 22	"	Fiebig Wagon Co.	Wag'n & carriage repairs	"	"
56	" 22	"	Julius Rathman	" " "	"	"
57	" 22	"	Royal Furniture Co.	Furniture	"	"
58	" 19	"	Burkey & Gray Furniture Co.	"	"	"
59	" 22	"	G. E. Blowpipe & Dust Arrest'g Co.	Blowpipes, etc.	"	part
60	" 22	"	F. Letellier & Co.	Interior house finishing	"	full
61	" 25	"	Economy Shoe Factory	Men's shoes	"	"
62	" 25	"	Millard's Steam Laundry	Laundry work	"	"
63	" 25	"	Grand Rapids Brewing Co.	Lager beer	"	"
64	" 25	"	Cotton & Decker	General woodwork	"	"
65	" 25	"	A. H. DeLong & Co.	Blowpipes and tinwork	"	"
66	" 25	"	C. A. Scheufler	Tin, copper and sheet iron	"	"
67	" 25	"	G. H. Bahuke	Feed and pressed hay	"	"
68	" 25	"	Smith & Kraft	Carriages and repairs	"	"
69	" 25	"	F. W. Emmer	Carriage & wagon repairs	"	"
70	" 25	"	J. H. Meyers	Harnesses	"	"
71	" 25	"	J. H. Dean	Patterns, models, etc.	"	"
72	" 25	"	C. G. Balesch	Sporting goods, etc.	"	"
73	" 29	"	F. L. Noble	Photographs	"	"
74	" 29	"	A. Tusch	Cigars	"	"
75	" 29	"	J. E. Kewning & Co.	"	"	"
76	" 29	"	Paul Elfert	Harnesses and trunks	"	"
77	" 29	"	Seymour & Muir Printing Co.	Printed matter	"	"
78	" 29	"	Vrijheids Banier	Newspaper	"	"
79	" 30	"	New York Blacuit Co.	Crackers and biscuits	"	"
80	" 30	"	West Michigan Printing Co.	Printed matter	"	"
81	" 30	"	Practical Farmer Co.	Agricultural journal	"	"
82	" 30	"	W. S. Jones	Cigars	"	"
83	" 30	"	Grand Rapids Post	Newspaper & job printing	"	"
84	" 30	"	Bodelack & Vanselow	Wood carving	"	"
85	May 1	"	David Forbes	Stencils, stamps and seals	"	"
86	" 1	"	Kuppenheimer Bros.	Cigars	"	"
87	" 1	"	D. P. Clark	Bicycle rep's and models	"	"
88	" 1	"	White Printing Co.	Printed matter	"	"
89	" 1	"	Michigan Artisan	Trade journal	"	"
90	" 1	"	A. J. Tucker	Book binding	"	"
91	" 1	"	The Germania	Newspaper & job printing	"	"
92	" 1	"	The Workman	Labor jour'l & job print'g	"	"
93	" 3	"	Reynolds Printing Co.	Printed matter	"	"
94	" 3	"	Grand Rapids Democrat	Newspaper	"	"
95	" 3	"	De Standaard	"	"	"
96	" 3	"	Weatherly & Pulte	Plumbing material, etc.	"	"
97	" 3	"	U. S. Cigar Co.	Cigars	"	"
98	" 3	"	Sutton & Murphy	General woodwork	"	"
99	" 3	"	G. Zwingeberg	Fur goods	"	"
100	" 4	"	Fountain Street Carriage Co.	Carriages and repairs	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1906.	Hours per week, running full time?	Hours per week, at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shiflers used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
51	60	60	28	23					10	\$1,100	60			yes		yes	no		yes	yes	yes	yes	
52	60	60	2	2					10	1,080	60			yes		yes			yes	yes	yes	yes	
53	60	60	2	2					10	100	60			yes		yes			yes	yes	yes	yes	
54	30	60	50	50			5	no	10	1,500	50	yes	yes	yes		yes			yes	yes	yes	yes	
55	60	60	8	8					10	875	60		no	yes		yes			yes	yes	yes	yes	
56	60	60	4	4					10	200	60			yes		yes			yes	yes	yes	yes	
57	60	60	190	124	1			no	10	4,575	50	yes	no	yes		yes			yes	yes	yes	yes	yes
58	60	60	590	363			5	yes	10	14,720	50			yes		yes			yes	yes	yes	yes	
59	60	54	16	7					10	360	60			yes		yes			yes	yes	yes	yes	
60	60	60	40	40					10	1,500	50			yes		yes		no	yes	no	yes	yes	
61	60	60	7	3	1				10	160	60			yes		yes			yes	yes	yes	yes	yes
62	60	60	6	2	4				10	315	60			yes		yes			yes	yes	yes	yes	no
63	60	60	52	35					10	2,325	60			yes		yes			yes	yes	yes	yes	
64	54	54	4	4					9	136	60			yes		yes			yes	yes	yes	yes	
65	60	60	4	4					10	200	60			yes		yes			yes	yes	yes	yes	
66	60	60	5	5					10	235	60			yes		yes			yes	yes	yes	yes	
67	48	48	2	2					8	70	60			yes		yes			yes	yes	yes	yes	
68	60	60	4	4					10	200	60			no		yes			yes	yes	yes	yes	
69	60	60	5	5					10	234	60			yes		yes			yes	yes	yes	yes	
70	60	60	6	6					10	100	60			yes		yes			yes	yes	yes	yes	
71	60	60	3	3					10	130	60	yes	no	yes	yes	yes			yes	yes	yes	yes	
72	60	60	4	2					10	100	60			yes		yes			yes	yes	yes	yes	
73	60	60	4	4					10	150	60			yes		yes			yes	yes	yes	yes	
74	48	48	5	4	1		1	yes	8	150	60			yes		yes			yes	yes	yes	yes	
75	48	48	32	8	2				8	875	60			yes		yes			yes	yes	yes	yes	
76	60	60	6	3					10	120	60			yes	yes	yes			yes	yes	yes	yes	
77	59	59	25	14	1				10	600	60			yes		yes			yes	yes	yes	yes	yes
78	40	40	4	4					8	200	60			yes		yes			yes	yes	yes	yes	
79	54	54	90	38	27				9	2,500	45	yes	yes	yes		yes			yes	yes	no	yes	yes
80	59	59	20	14					10	500	60			yes		yes			yes	yes	yes	yes	
81	59	59	4	4					10	125	60			yes		yes			yes	yes	yes	yes	
82	48	48	5	3			1	no	8	100	60			yes		yes			yes	yes	yes	yes	
83	59	59	5	5					10	250	60			yes		yes			yes	yes	yes	yes	
84	59	59	9	3					10	240	60			yes		yes			yes	yes	yes	yes	
85	60	60	4	4					10	250	60			yes	yes	yes			yes	yes	yes	yes	
86	48	48	4	2	1				8	117	60			yes		yes			yes	yes	yes	yes	yes
87	60	60	4	2					10	145	60			yes		yes			yes	yes	yes	yes	
88	59	59	10	10			1	no	10	410	60			yes	yes	yes			yes	yes	yes	yes	
89	59	59	5	4	1				10	408	60			yes		yes			yes	yes	yes	yes	
90	54	54	10	2	5				9	140	60			yes		yes			yes	yes	yes	yes	
91	59	59	7	7					10	270	60			yes		yes			yes	yes	yes	yes	
92	54	54	7	6	1				9	400	60			yes		yes			yes	yes	yes	yes	yes
93	59	59	6	5			2	no	10	200	60			yes		yes			yes	yes	yes	yes	no
94	59	59	44	41	3				10	4,250	60			yes		yes			yes	yes	yes	yes	yes
95	60	60	4	4			1	no	10	225	60			yes		yes			yes	yes	yes	yes	
96	54	54	65	55					9	2,250	60	yes	yes	yes		yes			yes	yes	yes	yes	
97	48	48	14	12	2				8	500	60			yes		yes			yes	yes	yes	yes	yes
98	60	60	25	12					10	54.0	60			yes		yes			yes	yes	yes	yes	
99	54	54	25	2	3				9	825	60			yes	yes	yes			yes	yes	yes	yes	yes
100	60	60	4	4					10	200	60			yes		yes			yes	yes	yes	yes	

Inspection book No. 3.

TABLE No. 3.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
101	May 4	Grand Rapids	John Cummings	Carriage repairs	run.	full
102	" 4	"	Alfred J. Brown & Co.	Cleaned and sorted seeds	"	"
103	" 4	"	Carl Knott & Co.	Millinery goods	"	"
104	" 4	"	J. N. LeClear	Photographs	"	"
105	" 4	"	Chas. S. Jandorf & Co.	Confect'y, bread & pastry	"	"
106	" 6	"	L. E. Patton	Bread and pastry	"	part
107	" 6	"	George Denio	General wood work	"	full
108	" 6	"	Grand Rapids Cloth Casket Co.	Cloth caskets	"	"
109	" 6	"	J. C. Herkner Jewelry Co.	Jewelry	"	"
110	" 6	"	Gardiner & Baxter	Shirts and laundry work	"	"
111	" 7	"	Samuel Sharpsteen	Photographs	"	"
112	" 7	"	H. Schneider Co.	Cigars	"	"
113	" 7	"	J. Wilhelm	Shoe uppers	"	"
114	" 7	"	Grand Rapids Corset Co.	Corsets	"	"
115	" 7	"	Michigan Cyclist	Cycling jour'n'l & job pr'g	"	"
116	" 8	"	Consolidated Street Railway Co.	Cars repaired and painted	"	"
117	" 8	"	G. R. Consolidated Brick & Tile Co.	Brick and tile	"	"
118	" 8	"	Collins Brick Co.	Brick	idle	"
119	" 8	"	Grand Rapids Pottery	Flower pots, vases, etc.	run.	full
120	" 9	"	Evening Press	Newspaper	"	"
121	" 9	"	Stanton Printing Co.	Printed matter	"	"
122	" 9	"	Reed Engraving Co.	Engravings and etchings	"	"
123	" 9	"	Kinsey Bros.	Shirts	"	"
124	" 10	"	Hindge, Kalmbach & Co.	Shoes	"	"
125	" 10	"	F. J. Bokup & Co.	Galvanized iron, tin, etc.	"	"
126	" 10	"	Tisch Bros.	Cigar boxes	"	"
127	" 10	"	Grand Rapids Knitting Co.	Knit underwear	"	"
128	" 11	"	Grand Rapids Paper Box Co.	Paper boxes	"	"
129	" 11	"	Michigan Iron Works	Machinery and castings	"	part
130	" 11	"	A. Hirth & Son	Cut stone	"	full
131	" 11	"	Ideal Clothing Co.	Pants, shirts and overalls	"	"
132	" 14	"	G. R. Hopson & Co.	Sheet metal work	"	"
133	" 14	"	Grand Rapids Herald	Newspaper	"	"
134	" 14	"	Valley City Engrav'g & Print'g Co.	Engraving and printing	"	"
135	" 14	"	Palmer Shirt Co.	Shirts	"	"
136	" 15	"	Stadley & Barklay	Belting and bicycle rep's	"	"
137	" 15	"	Spring & Co.	Dresses, curtains, etc.	"	"
138	" 15	"	Foster, Stevens & Co.	Sheet metal work, etc.	"	"
139	" 16	"	Houseman & Jones Clothing Co.	Clothing	"	"
140	" 16	"	Estate of Edward Struensee	Harnesses	"	"
141	" 16	"	Jennings & Smith	Extracts and perfumes	"	"
142	" 16	"	G. R. Paint and Wood Finish'g Co.	Paints, stains, etc.	"	"
143	" 16	"	Wm. A. Berkey Furniture Co.	Furniture	"	"
144	" 17	"	Arthur Wood Carriage Co.	Carriages, cutters, etc.	"	"
145	" 17	"	National Handy Article Co.	Household novelties	"	"
146	" 17	"	F. J. Everhart	Saws	"	"
147	" 17	"	A. Hanish	Harnesses	"	"
148	" 17	"	John P. Platte	Umbrellas and parasols	"	"
149	" 17	"	Tradesman Co.	Engraving and printing	"	"
150	" 18	"	Grand Rapids Refrigerator Co.	Refrigerators	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1886.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing bolts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
101	60	60	15	8	8				10	\$325	60			no	yes	yes	no	yes	yes	yes	no	yes	yes
102	60	60	24	4	4				10	286	60	yes	yes	yes	yes		yes	yes				yes	yes
103	57	57	40	15	20				10	910	60												
104	60	60	6	2	2				10	125	60												
105	60	60	6	4	2				10	200	60												
106	54	48	9	4	4				10	170	60												
107	54	54	5	5	5				9	200	60												
108	60	60	4	4	4				10	150	60												
109	60	60	5	5	5				10	268	60			yes	yes			yes	yes				
110	60	60	85	18	67				10	2,100	60	yes	yes					yes		yes			yes
111	54	54	5	3	3				8	200	60			no	no								
112	48	48	28	14	5				8	800	60			yes	yes								
113	60	60	3	2	1				10	100	60							yes	yes				
114	60	60	100	58	58		1	no	10	750	50	yes	yes	yes	yes			yes	yes				no
115	59	59	6	5	1				10	800	60			yes	yes								yes
116	60	60	14	14					10	540	60												
117	60	60	150	40					10	700	60							yes	no				
118	60	60	80						10	40	60											yes	
119	60	60	8	2					10	2,600	60			yes	yes		yes	yes	yes	yes		yes	yes
120	59	59	57	54	3				10	600	60				yes								
121	59	59	25	17	1				10	200	60				yes								no
122	54	54	9	4	3				9	1,000	50							yes	yes	yes			yes
123	60	60	44	4	40				10	8,000	60	yes	yes										
124	60	60	73	61	12				10	400	60												
125	60	60	16	10					10	240	60				yes		no	yes	yes	yes			yes
126	60	60	18	5	2		1	no	10	220	60												
127	60	60	7	1	6				10	800	60	yes	yes										
128	60	60	65	18	80		8	no	10	875	60												
129	60	48	50	26					10	50	60												
130	54	54	18	10					9	1,200	60	yes	no	yes	yes	yes	yes						yes
131	60	60	55	10	45		7	no	10	482	60							yes					
132	60	60	11	10	1				10	2,500	60	yes		yes				yes	yes	yes			yes
133	59	59	45	23	10				10	1,250	60				yes								
134	59	59	50	23	4				10	850	60												no
135	57	57	30	4	20				10	200	60	yes	no					yes					
136	60	60	11	6	30				10	1,200	60		yes					no					yes
137	60	60	60	5					10	650	60							yes					
138	60	60	11	11					10	2,600	60												yes
139	60	60	150	50	50				10	400	60												
140	60	60	10	10					10	950	60	yes	yes	yes	yes								yes
141	60	60	20	15	5				10	300	60	no						yes		yes			
142	60	60	5	5					10	5,130	50		yes		yes			yes			yes		
143	60	60	185	124					10	800	50												
144	60	60	40	4					10	140	50	yes	no	yes	yes								
145	60	60	10	4					10	125	60												
146	60	60	4	3					10	250	50												
147	60	60	8	5					10	250	60	yes	yes	yes	yes			no	yes	yes	no		yes
148	60	60	11	3					10	1,200	60							yes					
149	59	59	32	23	9				10	4,400	50		yes								yes		
150	60	60	200	140		2	5	yes	10														

Inspection book No. 4.

TABLE No. 8.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
151	May 18	Grand Rapids	Edison Light Co.	Electric light and power.	run.	full
152	" 20	"	Voigt Herpolsheimer & Co.	Overalls and draperies.	"	"
153	" 20	"	Haseltine & Perkins Drug Co.	Drugs	"	"
154	" 20	"	K. Dykema	Tables	"	"
155	" 20	"	J. W. York & Son	Musical instruments.	"	"
156	" 20	"	U. G. Clark	Printed matter.	"	"
157	" 20	"	A. E. Brooks & Co.	Candles	"	"
158	" 21	"	Putnam Candy Co.	"	"	"
159	" 21	"	C. Bakker	Clothing	"	"
160	" 21	"	Dean Printing Co.	Printed matter.	"	"
161	" 21	"	J. Chilver & Co.	Book binding	"	"
162	" 21	"	Grand Rapids Engraving Co.	Engravings	"	"
163	" 22	"	Miller Furnace Co.	Furnaces	"	"
164	" 22	"	Charles Dawson	Carriages and repairs	"	"
165	" 22	"	Hanson & Johnson	Printed matter.	"	"
166	" 22	"	Grand Rapids Neckwear Co.	Neckties	"	"
167	" 22	"	Morris Trensch & Bros.	Cigars	"	"
168	" 22	"	Charles Hoffman	Bread, pastry and candy.	"	"
169	" 22	"	Park Domestic Laundry	Laundry work	"	"
170	" 23	"	Sproul & McGurrin	Plumbing material.	"	"
171	" 24	"	Bookus Printing Co.	Printing and book bind'g	"	"
172	" 24	"	Grand Rapids Shirt Co.	Shirts	"	"
173	" 24	"	Vandenbergh Mfg Co.	Harnasses	"	"
174	" 24	"	James McGregor	Cloth'g cleaned and dyed	"	part full
175	" 24	"	A. S. Davis Co.	Cigars	"	full
176	" 25	"	Langerels & DeKoning	Printing and book bind'g	"	"
177	" 25	"	James Stewart	Cigars	"	"
178	" 25	"	Grand Rapids Rug Co.	Carpet and rugs	"	"
179	" 25	"	Grand Rapids Wooden Shoe Co.	Wooden shoes	"	"
180	" 25	"	G. G. Steketee	Patent medicines	"	"
181	" 26	"	Skinner & Markham	"	"	"
182	" 27	"	Blake's Domestic Bakery	Bread and cakes	"	"
183	" 27	"	Michigan Brush Co.	Brushes	"	"
184	" 27	"	Michigan Chalk Co.	Crayons and chalk	idle	"
185	" 27	"	Jeltes, Bregges & Co.	General woodwork	run.	full
186	" 27	"	Wm. Brummeler & Sons	Tinware	"	"
187	" 27	"	Valley City Machine Works	Wood work'g machinery.	"	"
188	" 27	"	G. J. Johnson	Cigars	"	"
189	" 28	"	Valley City Shirt Factory	Shirts	"	"
190	" 28	"	American Steam Laundry	Laundry work	"	"
191	" 28	"	Cyclold Cycle Co.	Bicycles	"	"
192	" 28	"	The Times	Newspaper & job print'g.	"	"
193	" 28	"	D. B. Weightman	Eavestrongs	"	"
194	" 29	"	Grand Rapids Monument Co.	Monuments	"	"
195	" 29	"	Heth Bros.	Sheet metal works, etc.	"	"
196	" 29	"	Dykema Grain and Fuel Co.	Feed	"	"
197	" 29	"	Rowson Bros. & Co.	General woodwork	"	"
198	" 29	"	C. H. Field	Sand brick	idle	"
199	" 31	"	W. H. Gibson	Monuments	run.	full
200	" 31	"	Patterson Furnace Co.	Furnaces	"	"

* Combined mantel and clothes bars.

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1886.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or alides?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
151	80	80	23	21	1				10	\$1,100	80	yes	yes	yes	yes	yes	no	yes	yes	no	yes	yes	yes
152	80	80	32	10	12				10	290	80	yes	yes	yes	yes	yes	no	yes	yes	no	yes	yes	yes
153	80	80	32	10	12				10	118	80	yes	yes	yes	yes	yes	no	yes	yes	no	yes	yes	yes
154	80	80	12	12	8				10	480	50	no	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
155	80	80	12	8					10	270	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
156	59	59	6	3	5				10	175	80	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
157	80	80	6	9	23				10	400	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
158	80	80	150	51	2				10	2,500	50	no	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
159	80	80	11	5	2				10	200	50	yes	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
160	59	59	80	28	1		1	yes	10	1,100	60	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
161	80	80	30	9	21				10	600	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
162	54	54	23	21	1				9	1,200	80	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
163	80	80	8	4					10	300	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
164	80	80	9	7					10	300	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
165	59	59	14	8					10	200	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
166	80	80	50	6	31				10	375	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
167	48	48	16	14	2				8	800	80	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
168	80	80	4	4					10	190	80	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
169	80	80	6	2	3				10	100	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
170	54	54	50	18					9	900	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
171	59	59	14	12	2		2	yes	10	400	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
172	80	80	87	5	24		1	yes	10	600	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
173	80	80	30	20					10	600	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
174	80	80	9	7	2				10	800	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
175	48	48	10	4					8	250	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
176	80	80	5	5	1		2	no	10	80	80	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
177	48	48	4	2	1				8	110	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
178	80	80	6	3	3				10	100	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
179	80	80	5	3					10	155	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
180	80	80	6	2					10	100	50	yes	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
181	80	80	4	4					10	165	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
182	80	80	16	15	1				10	800	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
183	80	80	10	8	4				10	800	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
184	80	80	36						10	800	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
185	80	80	20	14					10	375	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
186	59	59	3	3					10	100	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
187	80	80	5	5					10	195	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
188	54	54	21	13	8				9	525	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
189	80	80	8	8			1	no	10	100	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
190	80	80	80	18	47				10	2,275	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
191	80	80	23	21	2				10	800	50	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
192	59	59	3	3					10	100	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
193	80	80	5	5					10	165	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
194	80	80	4	4					10	225	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
195	80	80	4	6					10	250	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
196	80	80	5	4	1				10	152	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
197	80	80	149	67					10	2,900	80	yes	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
198	80	80	10						10	143	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
199	59	59	5	3					10	117	60	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
200	80	80	10	2					10			yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes

* Permit given by inspector.

Inspection book No. 5.

TABLE No. 8.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
201	May 31	Grand Rapids	Mich. Fire Ladder and Engine Co.	Fire ladders and trucks.	idle	-----
202	" 31	"	Granite Pressed Brick Co.	Pressed brick	"	-----
203	June 1	"	C. T. Campbell	Brooms	run.	full
204	" 1	"	Maybee Bros.	"	"	"
205	" 1	"	A. J. Karrema	General wood work.	"	"
206	" 5	"	Grand Rapids Novelty M'fg Co.	Closet seats and tanks.	idle	-----
207	" 5	"	Grand Rapids Desk Co.	Desks	run.	full
208	" 5	"	Hake Manufacturing Co.	Wood ornaments	"	"
209	" 5	"	John Mack	Carriage woodwork, etc.	"	"
210	" 6	"	Constantine Morton	General wood work	"	"
211	" 6	"	G. R. & I. R. R. Car Shops	Locomotive & car repairs	"	part
212	" 6	"	Vulcan Iron Works	Gray iron castings	"	full
213	" 6	"	Standard Cabinet Co.	Furniture	"	"
214	" 7	"	Sick Bros.	Bread and pastry	"	"
215	" 7	"	S. P. Swartz	Building material	"	"
216	" 7	"	George R. Reeves	General wood work	idle	-----
217	" 7	"	H. Rademaker & Sons	Croquet sets and ball bats	run.	full
218	" 7	"	Central Furniture Co.	Tables, etc.	"	part
219	" 8	"	Daniel Lynch	Baking powder & bluing	"	full
220	" 8	"	Valley City Marble Works	Monuments	"	"
221	" 8	"	Grand Rapids Tent & Awning Co.	Tents, awnings, etc.	"	"
222	" 8	"	Palace Laundry	Laundry work	"	"
223	" 8	"	J. H. Colleton & Co.	Carpet beaters	idle	-----
224	" 10	"	Sligh Furniture Co.	Furniture	run.	full
225	" 10	"	Henry Kortlander	Beer kegs and pork barrels	"	"
226	" 10	"	Jacob Reelman	General woodwork	"	"
227	" 10	"	Grand Rapids Gas Co.	Gas and coke	"	"
228	" 11	"	Grand Rapids Felt Boot Co.	Felt boots and shoes	"	part
229	" 11	"	McCord & Bradfield Furniture Co.	Furniture	"	full
230	" 11	"	Michigan Chair Co.	Chairs	"	"
231	" 12	"	Stickley Bros. Co.	Chairs and tables	"	"
232	" 12	"	Retting & Sweet	Parlor and lodge furniture	"	"
233	" 12	"	Anti-Kalsomine Co.	Alabastine and plastic	"	"
234	" 12	"	American Carving and M'fg Co.	Carved moldings	"	"
235	" 12	"	F. Godfrey & Bro.	Land plaster and stucco	"	"
236	" 12	"	Grand Rapids Brick Co.	Brick	"	"
237	" 12	"	Alabastine Co.	Land plaster, etc.	"	"
238	" 12	"	Grand Rapids Glue Co.	Glue, fertilizers and soap	"	"
239	" 19	"	Sints Gas Engine Co.	Launches and gas engines	"	"
240	" 19	"	M. E. Christenson	Crackers and cakes	"	"
241	" 19	"	Paine Bedding Co.	Bedding and springs	"	"
242	" 19	"	H. N. Hall Cabinet Co.	Desks and tables	"	"
243	" 20	"	Bryan Rattan Chair Co.	Rattan work	"	part
244	" 20	"	Priestly Wagon and Sleigh Co.	Screens, ladders and sleds	"	full
245	" 20	"	Grand Rapids Piano Case Co.	Piano cases	"	"
246	" 20	"	A. A. Greil	Kegs, tubs and cisterns	"	"
247	" 20	"	Chappell & Teltarow	Soaps, ammonia, etc.	"	"
248	" 21	"	Oriel Cabinet Co.	Fine furniture	"	"
249	" 21	"	Central Boiler Works	Boilers and sheet iron	"	"
250	" 21	"	Hoebeke & Co.	Sorted rags	"	"

THIRD ANNUAL REPORT.

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District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1898.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
201	60	15	3	3																			
202	60	10	3	3																			
203	60	3	3	3																			
204	60	5	3	3																			
205	60	7	4	4																			
206	60	50																					
207	60	95	2																				
208	60	25	22																				
209	60	20	3																				
210	60	25	19																				
211	60	357	357																				
212	60	15	7																				
213	60	20	9																				
214	60	10	4																				
215	60	50	45																				
216	60	25	22																				
217	60	45	22																				
218	60	24	2																				
219	60	6	4																				
220	60	4	2																				
221	60	3	1																				
222	60	6	3																				
223	60	6																					
224	60	200	174																				
225	60	6	1																				
226	60	15	8																				
227	60	50	35																				
228	60	100	42																				
229	60	600	600																				
230	60	240	163																				
231	60	360	296																				
232	60	100	59																				
233	60	50	17																				
234	60	10	10																				
235	60	50	28																				
236	60	35	19																				
237	60	55	28																				
238	60	8	8																				
239	60	60	45																				
240	60	11	11																				
241	60	37	34																				
242	54	20	2																				
243	60	10	2																				
244	60	50	30																				
245	60	80																					
246	60	7	1																				
247	60	4	2																				
248	60	350	300																				
249	60	18	12																				
250	60	14	8																				

* 168 hours, running all the time.

† Permit given by inspector.

Inspection book No. 6.

TABLE No. 3.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
251	June 21	Grand Rapids	Waddell Mfg Co.	Furniture ornaments	run.	part
252	" 21	"	Chicago Laundry	Laundry work	"	full
253	" 22	"	I. L. Qutimby	Organ st'k & maple fl'or'g	"	"
254	" 23	"	Grand Rapids Chair Co.	Furniture	"	"
255	" 24	"	Michigan Barrel Co.	Bent work and boxes	"	"
256	" 24	"	Dupree & Newitt	Build'g material & boxes	"	"
257	" 24	"	Dale & Brethour	Excelsior	"	"
258	" 24	"	The Hill Domestic Bakery	Bread and pastry	"	"
259	" 25	Grandville	Gypsum, Plaster and Stucco Co.	Land plaster	"	part
260	" 26	"	Loren Day Estate	Land plaster and stucco	idle	"
261	" 26	Jenison	Jenison Saw Mill	Lumber and shingles	"	"
262	" 26	"	Jenison Mfg Co.	Railroad supplies	"	"
263	" 28	Zeeland	Zeeland Furniture Mfg Co.	Furniture	run.	full
264	" 28	"	Depree & Elenbeas	Wagons, sleighs, etc.	"	"
265	" 28	"	Unity Roller Mills	Flour and feed	"	"
266	" 28	"	Zeeland Brick Co.	Brick	"	"
267	" 28	"	Little Wonder Mills	Flour and feed	"	"
268	July 1	Holland	C. L. King & Co.	Veneer, butterplates, etc.	"	"
269	" 1	"	Cappon & Bertsch Leather Co.	Harness and shoe leather	"	part
270	" 1	"	West Michigan Furniture Co.	Furniture	"	full
271	" 1	"	Holland City Steam Laundry	Laundry work	"	"
272	" 1	"	Crescent Planing Mill	General woodwork	idle	"
273	" 1	"	Anton Self	Lager beer	run.	full
274	" 2	"	James Huntley	Building material	"	"
275	" 2	"	Busch Machine Co.	Machinery and repairs	"	"
276	" 2	"	Phoenix Planing Mill	General woodwork	"	"
277	" 2	"	DeGrondwet Printing House	Printed matter	"	"
278	" 2	"	James Schoon & Son	Leather	"	"
279	" 2	"	Alfred Huntley	Machinery & elect. light	"	"
280	" 2	"	Holland Furniture Co.	Furniture	"	"
281	" 2	"	Walsh-De Roo Milling Co.	Flour and feed	"	"
282	" 2	"	Novelty Wood Works	Building material	"	"
283	" 3	"	Ottawa Furniture Co.	Furniture	"	"
284	" 3	"	West Michigan Steam Laundry	Laundry work	"	"
285	" 3	"	Lake Side Furniture Co.	Book cases and tables	"	"
286	" 3	"	A. Van Patten & Co.	Butter tubs & candy pails	"	"
287	" 3	"	Cappon & Bertsch Leather Co.	Shoe leather	"	"
288	" 3	"	Holland City News	Newspaper & job print'g	"	"
289	" 3	"	H. Van Tongeren	Cigars	"	"
290	" 3	"	City Mills	Flour and feed	"	"
291	" 8	Cadillac	Cadillac Stave and Heading Co.	Staves and heading	"	"
292	" 8	"	Cadillac Handle Co.	Broomhandles	"	"
293	" 8	"	C. M. Oviatt Mfg Co.	Fruit packages	"	"
294	" 8	"	Cummer & Diggins, Mill No. 1	Lumber and timber	"	"
295	" 8	"	Cummer & Diggins, Mill No. 2	Lumber	"	"
296	" 9	"	Cadillac Elect. Light & Water Co.	Electric light	"	"
297	" 9	"	Blodgett, Cummer & Diggins	Dressed lumber, etc.	"	"
298	" 9	"	Cummer Mfg Co.	Ladders, crates, etc.	"	"
299	" 9	"	Crescent Wood Co.	Fire wood	idle	"
300	" 9	"	Wm. McAuley & Co.	Machinery and repairs	run.	full

District No. 8.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are "shifters" used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
251	60	48	60	53	---	---	---	---	8	\$1,600	50	---	---	yes	---	yes	no	no	yes	yes	yes	yes	---
252	60	60	10	4	---	---	---	---	10	280	60	---	---	---	---	---	---	---	---	---	---	---	yes
253	60	60	44	34	---	---	---	---	10	900	50	---	---	---	---	---	---	---	---	---	---	---	---
254	60	60	300	275	---	---	1	yes	10	9,500	50	yes	no	no	---	---	---	yes	yes	yes	yes	---	---
255	60	60	250	205	---	4	16	---	10	5,000	50	---	---	yes	---	---	---	---	---	no	---	---	---
256	60	60	20	20	---	1	---	---	10	875	*30	---	---	no	---	---	---	---	yes	yes	---	---	---
257	60	60	18	16	---	---	2	yes	10	400	50	---	---	---	---	yes	---	---	---	no	---	---	---
258	60	60	15	14	---	1	---	---	10	650	50	---	---	yes	yes	---	no	---	---	---	---	---	yes
259	60	20	42	21	---	---	---	---	10	300	60	---	---	no	---	---	---	---	yes	no	---	---	---
260	60	---	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
261	60	---	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
262	60	---	30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
263	60	60	70	67	---	---	3	yes	10	1,400	60	no	yes	yes	---	yes	no	yes	yes	no	yes	yes	---
264	60	60	18	12	---	---	---	---	10	475	60	no	no	---	yes	---	---	---	yes	yes	---	---	---
265	60	60	7	7	---	---	---	---	10	220	60	---	---	no	---	---	---	---	---	yes	---	---	---
266	60	60	60	30	---	---	---	---	10	1,600	60	---	---	yes	---	---	---	---	---	no	---	---	---
267	60	60	12	6	---	---	---	---	10	200	60	---	---	no	---	---	---	---	---	---	---	---	---
268	60	60	280	150	40	1	9	yes	10	4,000	60	yes	yes	yes	yes	---	---	yes	---	yes	yes	yes	yes
269	60	54	265	212	1	---	---	---	9	8,000	60	---	---	---	---	---	---	---	---	---	---	---	---
270	60	60	364	362	2	---	5	yes	10	8,400	60	---	---	---	---	---	---	---	---	yes	---	---	---
271	60	60	6	2	4	---	---	---	10	150	60	---	---	---	---	---	---	no	no	---	---	---	no
272	60	---	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
273	60	60	5	5	---	---	---	---	10	170	60	---	---	yes	---	yes	no	yes	yes	no	no	yes	---
274	60	60	12	6	---	---	---	---	10	200	60	---	---	no	---	---	---	---	yes	no	no	---	---
275	60	60	10	6	---	---	---	---	10	315	60	---	---	---	---	---	---	---	yes	---	---	---	---
276	60	60	20	10	---	---	---	---	10	300	60	---	---	yes	---	---	---	---	---	---	no	---	---
277	60	60	10	10	---	---	---	---	10	400	60	---	---	---	---	---	---	---	---	---	---	---	---
278	60	60	4	4	---	---	---	---	10	110	60	---	---	---	---	---	---	---	---	---	---	---	---
279	60	60	6	6	---	---	---	---	10	250	60	---	---	---	---	---	---	---	---	---	---	---	---
280	60	60	156	156	---	---	3	no	10	3,925	60	yes	no	yes	---	---	---	yes	---	no	yes	---	---
281	72	72	34	34	---	---	---	---	10	1,336	60	---	---	---	---	---	---	---	---	---	---	---	---
282	60	60	35	15	---	---	---	---	10	1,100	60	yes	yes	---	---	---	---	---	yes	no	---	---	---
283	60	60	125	125	---	---	---	---	10	3,400	60	---	no	---	---	---	---	yes	---	yes	---	---	---
284	60	60	8	2	6	---	---	---	10	175	60	---	---	---	---	---	---	---	---	no	---	---	no
285	60	60	15	15	---	1	yes	---	10	425	50	---	---	yes	---	---	---	---	yes	yes	---	---	---
286	60	60	65	62	---	1	10	no	10	1,600	60	---	---	---	---	---	---	---	---	---	---	---	---
287	60	60	52	52	---	1	2	---	10	1,632	45	no	no	no	---	---	---	yes	---	no	---	---	---
288	60	60	10	10	---	2	---	---	10	800	60	---	---	yes	---	---	---	---	---	yes	---	---	---
289	60	60	12	4	8	---	---	---	10	350	60	---	---	---	---	---	---	---	---	---	---	---	no
290	60	60	5	5	---	---	---	---	10	200	60	---	---	no	---	---	---	---	yes	yes	---	---	---
291	60	60	74	39	---	---	8	yes	10	1,750	60	---	---	---	---	---	---	---	---	yes	---	---	---
292	60	60	45	45	---	---	---	---	10	2,000	60	---	---	yes	no	---	---	---	---	---	---	---	---
293	60	60	100	82	---	---	7	no	10	2,000	60	---	---	---	yes	---	---	---	no	no	---	---	yes
294	60	60	98	98	---	---	---	---	10	3,282	60	---	---	---	---	---	---	---	yes	yes	---	---	---
295	60	60	95	95	---	---	---	---	10	2,988	60	---	---	---	---	---	---	---	---	---	---	---	---
296	72	72	9	9	---	---	---	---	10	463	60	---	---	---	---	---	---	---	---	---	---	---	---
297	60	60	67	67	---	---	---	---	10	1,760	60	---	---	yes	---	---	---	---	---	---	yes	---	---
298	60	60	20	12	---	---	---	---	10	350	60	---	---	no	---	---	---	---	---	---	---	---	---
299	60	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
300	57	57	25	20	---	---	---	---	10	825	60	---	---	no	---	yes	no	---	yes	yes	---	yes	---

* Permit given by inspector.

Inspection book No. 7.

TABLE No. 8.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
301	July 9	Cadillac	Cadillac Steam Laundry	Laundry work	run.	full
302	" 9	"	Cobb & Mitchell, Mill No. 1	Lumber and lath	"	"
303	" 9	"	Cobb & Mitchell, Mill No. 2	"	"	"
304	" 9	"	F. A. Diggins & Co.	Lumber	"	"
305	" 10	"	Lumsden & Ward	Bicycle rims & dim's. st'k	"	"
306	" 10	"	Haynes Bros.	Dressed lumber	"	"
307	" 10	"	J. Cornwell & Sons	Flour and feed	idle	"
308	" 10	"	Wilcox Bros.	Brick	"	"
309	" 10	"	Rybolt & Clanssen	Cigars	run.	full
310	" 10	Manton	J. H. Richardson	Staves	idle	"
311	" 10	"	Truman Bros.	Lumber and shingles	"	"
312	" 10	"	W. H. Campbell	Dowels and chair rockers	run.	full
313	" 10	"	O. C. Kraft	Lumber	"	"
314	" 10	"	A. Green & Son	Chair stock, etc.	"	"
315	" 10	"	Williams Bros.	Last blocks	"	"
316	" 11	Harietta	L. J. Tripp	Broom handles	"	"
317	" 11	Yuma	Southern Chemical Co.	Charcoal and alcohol	"	"
318	" 11	Copemish	Chapman & Sargent	Bowls and trays	"	"
319	" 11	"	Frans Krein	Hames and singletrees	"	"
320	" 11	"	M. T. Crimmins	Lumber and shingles	"	part
321	" 11	"	Copemish Roller Mills	Flour and feed	idle	"
322	" 12	Thomps'nville	Charles Fox & Co.	Maple flooring	run.	full
323	" 12	"	Charles Fox & Co.	Lumber	"	"
324	" 12	"	Delaney & Hart	Cant hook handles	"	"
325	" 12	"	L. G. Dunton & Son	Lumber	idle	"
326	" 12	"	I. W. Bowen	Shingles	"	"
327	" 12	"	C. A. Hunt	Lumber and shingles	run.	full
328	" 12	Frankfort	D. B. Butler	Lumber	"	"
329	" 12	"	H. A. Hill	Shingles & dress'd lumber	"	"
330	" 12	"	Frankfort Woodenware Co.	Broom h'ndles, hoops, etc.	"	"
331	" 12	"	Bellows Bros.	Lumber	"	"
332	" 12	"	F. E. Markham	Machinery and repairs	"	"
333	" 12	"	J. Courville	Dressed lumber	"	"
334	" 12	"	Frankfort Refrigerator Co.	Refrigerators	idle	"
335	" 15	S. Frankfort	The Crane Lumber Co.	Lumber	run.	full
336	" 15	"	The Crane Lumber Co.	Maple flooring	"	"
337	" 15	Watervale	Watervale Manufacturing Co.	Lumber, lath and shingles	"	"
338	" 15	Arcadia	Henry Starke Land & Lumber Co.	Lumber, lath, etc.	"	"
339	" 16	Bear Lake	George W. Hopkins	Lumber	"	"
340	" 16	"	Crystal Mills	Flour and feed	idle	"
341	" 16	Onokama	Onokama Lumber Co.	Lumber and lath	"	"
342	" 16	Manistee	Canfield & Wheeler Co.	Lumber and salt	run.	full
343	" 17	"	Daniel Jensen	Dressed lumber, etc.	"	"
344	" 17	"	Manistee Broom Co.	Brooms and mops	"	"
345	" 17	"	Aug. M. Johnson	Mill machinery	"	"
346	" 17	"	S. C. Overpeach	Wagons, trucks, etc.	"	"
347	" 17	"	News Publishing Co.	Newspaper and job print.	"	"
348	" 18	"	Manistee Daily Advocate	" " " "	"	"
349	" 18	"	Comfort Bros.	Cigars	"	"
350	" 18	"	Joseph Kirster	"	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1898.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
301	60	60	7	3	4				10	\$200	60			no		yes	no		yes	yes	no	yes	no
302	60	60	40	40					10	1,717	60			yes		"	"		yes	no			
303	60	60	67	67					10	2,357	60			yes		"	"		"	no			
304	60	60	37	37					10	1,400	60			no		"	"		"	yes			
305	60	60	22	9			1	no	10	250	60					"	"		"	no			
306	60	60	25	18			1	"	10	500	60			yes		"	"		"	yes			
307	60		7																				
308	60		22																				
309	48	48	15	12	3				8	600	60					yes	no					yes	yes
310	60		30																				
311	60		20																				
312	60	60	8	6					10	235	60					yes	no		yes	yes	no	yes	
313	60	60	32	15					10	550	60					"	"		"	no			
314	60	60	14	14					10	300	60					"	"		no	yes	yes		
315	60	60	15	15					10	490	60					"	"		no	yes	no		
316	60	60	10	10		3			10	312	60					"	yes		"	"			
317	60	60	25	14					10	550	60			yes		"	no		"	"			
318	60	60	12	12					10	300	60					"	"		"	"	no		
319	60	60	35	32		1	no		10	800	60					"	"		"	"	yes		
320	60	60	9	2					10	260	60					"	"		"	"			
321	60		5																				
322	60	60	16	16		3	no		10	572	60					yes	no		yes	yes	yes	yes	
323	60	60	60	60					10	1,250	60			no		"	"		"	no			
324	60	60	6	6					10	285	60					"	"		"	"			
325	60		18																				
326	60		12																				
327	60	60	18	8					10	385	60			no		yes	no		yes	no	yes	yes	
328	60	60	36	32					10	1,400	60					"	"		"	yes	no		
329	60	60	55	45		4	no		10	1,700	60			yes		"	"		"	no	yes		
330	60	60	55	55		7	"		10	1,900	60			no		"	"		"	"			
331	60	60	32	32					10	1,300	60			yes		"	"		"	yes			
332	60	60	10	5					10	250	60					"	"		"	"			
333	60	60	15	4					10	200	60					"	"		"	"	no		
334	60		30																				
335	60	60	95	95		1	no		10	2,393	60			yes		yes	no		yes	yes	yes	yes	
336	60	60	14	14					10	840	60					"	"		no	no	yes		
337	60	60	38	38					10	2,000	60			no		"	"		yes	yes	yes		
338	60	60	40	40		1	no		10	1,700	60			yes		"	"	yes	"	yes	yes		
339	60	60	35	35					10	1,300	60			no									
340	60		5																				
341	60		30																				
342	60	60	165	145	20				10	5,500	60			no		yes	no		yes	no	no	yes	yes
343	60	60	7	7					10	890	60			yes		"	"		yes	yes	no		
344	60	60	23	12					10	650	50	yes			yes	"	"	yes	"	yes			
345	60	60	15	6	1				10	850	50					"	"		yes	yes			yes
346	60	60	18	10					10	585	60			yes		"	"		yes	yes			
347	60	60	12	7	3				10	500	60					"	"		yes	yes			yes
348	60	60	7	8	4				10	160	60			yes		"	"		"	"			"
349	48	48	35	9	2		1	no	8	450	60					"	"						"
350	48	48	7	7					8	300	60					"	"						"

Inspection book No. 8.

TABLE No. 8.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
351	July 18	Manistee	City Steam Laundry	Laundry work	run.	full
352	" 18	"	James Finan	Cigars	"	"
353	" 18	"	R. J. B. Newcomb	General woodwork	"	"
354	" 18	"	Frank C. Hall	Cigars	"	"
355	" 18	"	Henry E. Roy	"	"	"
356	" 19	"	Manistee Printing Co.	Job printing	"	"
357	" 19	"	C. O. U. Steam Laundry	Laundry work	"	"
358	" 19	"	Joseph Broadhead	Saws	"	"
359	" 19	"	J. C. Pomeroy	Lumber and shingles	"	"
360	" 19	"	J. C. Pomeroy	Soft drinks	"	"
361	" 19	"	Manistee Mattress Co.	Mattresses	"	"
362	" 19	"	Manistee Brewing Co.	Lager beer	"	"
363	" 19	"	Manistee Iron Works Co.	Machinery, boilers, etc.	"	"
364	" 20	"	Union Boiler Works	Boilers and stacks	"	"
365	" 20	"	Sands Electric Light Co.	Electric light	"	"
366	" 20	"	Louis Sands	Lumber and lath	"	"
367	" 20	"	Louis Sands	Salt	"	"
368	" 20	"	Louis Sands	Shingles	"	"
369	" 20	"	M. & N. E. R. E. Car Shops	Locomotives and cars	"	"
370	" 20	"	Buckley & Douglass	Lumber, lath and shingles	"	"
371	" 22	"	Nels Johnson	Tower clocks	"	"
372	" 22	"	Wm. Batty & Son	Saws	"	"
373	" 22	"	State Lumber Co.	Lumber, lath and shingles	"	"
374	" 22	"	State Lumber Co.	Salt	"	"
375	" 22	"	M. F. C. & E. L. B'y Co.	Electricity & car repairs	"	"
376	" 22	"	Babcock Lumber Co.	Shingles	"	"
377	" 23	"	J. O. Nessen, Agent	Salt	"	"
378	" 23	"	J. O. Nessen, Agent	Lumber, lath and shingles	"	"
379	" 23	"	Emery & Stokes	Shingles	"	"
380	" 23	"	W. E. Thorson & Co.	Lumber and shingles	idle	"
381	" 23	"	Filer & Sons	Lumber, lath and shingles	run.	full
382	" 23	"	Filer & Sons	Salt	"	"
383	" 24	"	Manistee Mfg Co.	Furniture	"	"
384	" 24	"	East Shore Furniture Co.	"	idle	"
385	" 24	"	North Side Planing Mill	Dressed lumber, etc.	"	"
386	" 24	"	Manistee Emery Wheel Co.	Emery wheels	run.	full
387	" 24	"	City Planing Mill	Dressed lumber, etc.	"	"
388	" 24	"	Eureka Lumber Co.	Lumber and lath	"	"
389	" 24	"	Eureka Lumber Co.	Salt	"	"
390	" 24	"	Manistee Lumber Co.	Lumber and lath	"	"
391	" 25	"	Louis Sands	Maple flooring	idle	"
392	" 25	East Lake	Canfield Salt and Lumber Co.	Lumber	run.	full
393	" 25	"	Canfield Salt and Lumber Co.	Salt	"	"
394	" 25	"	E. G. Peters Salt and Lumber Co.	Lumber and shingles	"	"
395	" 25	"	E. G. Peters Salt and Lumber Co.	Salt	"	"
396	" 25	"	Canfield Salt and Lumber Co.	Lumber and shingles	"	"
397	" 25	"	Canfield Salt and Lumber Co.	Salt	"	"
398	" 25	Stronach	Union Lumber and Salt Co.	Lumber and shingles	"	"
399	" 25	"	Union Lumber and Salt Co.	Salt	"	"
400	" 26	"	M. A. Hopper	Lumber, lath, etc.	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belis, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary.	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
351	60	60	8	8	8				10	\$170	60			yes		yes	no		yes	yes		yes	no
352	48	48	5	5					8	172	60												
353	60	60	40	12					8	600	60				yes				yes	yes			
354	48	48	8	4					8	205	60												
355	48	48	4	4					8	140	60												
356	59	59	4	2					10	100	60			yes					yes	yes			
357	60	60	20	6	11				10	350	60								yes	no			
358	59	59	9	4					10	260	60								yes	yes			no
359	60	60	51	51			1	yes	10	1,750	60			yes					yes	yes			
360	60	60	7	7					10	225	60												
361	60	60	6	4	2				10	200	60											no	no
362	60	60	9	9					10	480	60			yes				yes	yes	yes			
363	60	60	100	100			1	no	10	4,500	60						yes		yes	no		yes	
364	60	60	20	15					10	350	60								yes	no			
365	72	72	13	13					10	650	60			yes					yes	yes			
366	60	60	117	117			1	no	10	4,800	60										no		
367	60	60	66	66					10	2,200	60												
368	60	60	70	70			3	yes	10	2,400	60												
369	60	60	18	12					10	950	60												
370	60	60	400	325			6	yes	10	12,000	60			yes							yes		
371	60	60	4	2					10	120	60												
372	60	60	4	3					10	195	60												
373	60	60	180	180			7	yes	10	6,000	60			yes							yes		
374	60	60	70	70			2	yes	10	2,600	60										no		
375	72	72	8	8					10	395	60								yes	yes			
376	60	60	49	49			1	no	10	1,800	60			no									
377	60	60	89	89			4		10	2,700	60			yes							no		
378	60	60	66	66					10	2,700	60										no		
379	60	60	62	39			2	no	10	2,200	60									yes			
380	60	60																					
381	60	60	108	93					10	3,200	60			yes		yes	no		yes	yes	no	yes	
382	60	60	45	42			3	no	10	1,444	60												
383	60	60	85	75			12	yes	10	2,000	60	yes	no					yes		no	yes		
384	60	60	100																				
385	60	60	4																				
386	60	60	4	4					10	170	60					yes	no		yes	yes	yes	yes	
387	60	60	8	4					10	200	60			no					yes	yes	yes	yes	
388	60	60	115	115			4	yes	10	4,000	60			yes						no			
389	60	60	49	49					10	1,500	60												
390	60	60	83	83			2	no	10	3,000	60										no		
391	60	60	17											yes		yes	no		yes	yes	yes	yes	
392	60	60	56	56					10	2,000	60												
393	60	60	34	34			2	yes	10	1,000	60												
394	60	60	400	400			3	no	10	15,000	60			no									
395	60	60	192	192			3		10	5,800	60			yes			yes						
396	60	60	203	203			8	yes	10	5,525	60						no						
397	60	60	47	47					10	1,300	60										yes		
398	60	60	120	120			2	yes	10	4,500	60										no		
399	60	60	40	40			3		10	1,500	60												
400	60	60	85	55					10	2,200	60			no									

Inspection book No. 9.

TABLE No. 8.—CONTINUED.—

No. given factory for 1895.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
401	Aug. 5	Fremont	L. Mulder	Lumber	run.	part
402	" 5	"	D. Gerber's Sons	Sole leather	run.	full
403	" 5	"	Fremont Manufacturing Co.	Furniture	idle	full
404	" 5	"	Darling Milling Co.	Flour and feed	run.	full
405	" 5	"	Burks & Son	Lumber	run.	full
406	" 5	White Cloud	White Cloud Novelty Works	Hame fixtures	"	"
407	" 5	Keno	Richard E. Oxford	Ties and shingles	idle	"
408	" 5	"	Horning & Hart	Lumber	run.	full
409	" 5	"	E. T. Lockerby	Shingles & basket bottoms	"	"
410	" 5	Sisson	Sisson & Lilley Lumber Co.	Lumber	"	"
411	" 6	"	Sisson & Lilley Lumber Co.	Dressed lumber	"	"
412	" 6	"	Sisson & Lilley Lumber Co.	Shingles	idle	"
413	" 7	Baldwin	Reed City Shingle and Lumber Co.	Shingles and lumber	run.	full
414	" 7	Luther	Crandall & Gould	Shingles	"	full
415	" 7	"	James Sterling	Lumber	idle	"
416	" 7	Haakville	J. H. and J. A. Haak	Lumber, dowels, etc.	run.	full
417	" 7	"	J. H. and J. A. Haak	Chair rockers, etc.	"	"
418	" 8	Stearns	J. S. Stearns	Hardwood lumber	idle	"
419	" 8	"	J. S. Stearns	Lumber	run.	full
420	" 8	"	J. S. Stearns	Dressed lumber	"	"
421	" 8	Custer	Cantwell & English	Lumber, staves, etc.	"	"
422	" 8	"	Custer Manufacturing Co.	Clothespins	"	"
423	" 9	Ludington	Ludington Novelty Works	Wood novelties	"	"
424	" 9	"	Cartier Enameling Co.	Wood turning & enamel g	"	"
425	" 9	"	Star Steam Laundry	Laundry work	"	"
426	" 9	"	Ludington Milling Co.	Flour and feed	"	"
427	" 9	"	Pierce Manufacturing Co.	Brooms	"	"
428	" 9	"	Lubetaky Bros.	Cigars	"	"
429	" 9	"	Finigan & Wrenker	"	"	"
430	" 9	"	Nathan Joseph	"	"	"
431	" 10	"	Tiedaman & Ungers	General woodwork	"	"
432	" 10	"	Davies Bros.	Boilers and stacks	"	"
433	" 10	"	Ludington Iron Works	Machinery and repairs	"	"
434	" 10	"	M. A. Agens	General woodwork	"	"
435	" 10	"	Pere Marquette Lumber Co.	Lumber	"	"
436	" 10	"	Pere Marquette Lumber Co.	Salt	"	"
437	" 10	"	The Daily Mail	Newspaper & job printing	"	"
438	" 12	"	Daneher & Melendy	Lumber and shingles	"	"
439	" 12	"	Percy Salt Works, No. 2	Salt	"	"
440	" 12	"	T. R. Lyon, Agent	Lumber	"	"
441	" 12	"	Percy Salt Works, No. 1	Salt	"	"
442	" 12	"	Ludington Shingle Co.	Shingles	idle	"
443	" 12	"	Ludington Woodenware Co.	Bowls, clothespins, etc.	run.	full
444	" 12	"	Ludington Basket Co.	Fruit packages	"	"
445	" 13	"	Marcus Musaler	Cigars	"	"
446	" 13	"	Industrial Iron Works	Machinery and repairs	"	"
447	" 13	"	Ludington Elec. Light & Power Co.	Electric light and power	"	"
448	" 13	"	Central Package and Basket Co.	Mops	"	part
449	" 13	"	Percy Salt Works, No. 3	Salt	"	full
450	" 13	"	Cartier Lumber Co.	Lumber and shingles	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shutters used in throwing balts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
401	60	30	22	4					10	\$750	60			yes		yes	no		yes	yes	no	yes	
402	59	59	41	35					10	1,000	60			"		yes	"		yes	"		"	
403	60		50																				
404	66	66	6	4					10	200	60			yes		yes	no		yes	no		yes	
405	60	60	15	4					10	250	60			"		"	"		yes	yes	no	yes	
406	60	60	15	6					10	300	60			"	yes	"	"		"	"	"	"	
407	60		20						10	2,000	60			yes		yes	no		yes	yes		yes	
408	60	60	60	60					10	800	60			yes		"	"		"	"	"	"	
409	60	60	23	23			3	no	10	4,000	60			yes		"	"		"	"	"	"	
410	6	60	80	80					10	312	60					"	"		"	no	yes	"	
411	60	60	8	8					10	800	60					yes	no		yes	no	yes	yes	
412	60		14				1	no	10	416	60					"	"		"	yes	"	"	
413	60	60	30	80			1	"	10							yes	no		yes	no	yes	yes	
414	60	60	11	11					10							"	"		"	yes	"	"	
415	60		12													"	"		"	yes	"	"	
416	60	60	20	20		1	3	no	10	520	60			yes		yes	no		yes	no		yes	
417	60	60	22	22			4	"	10	575	60					yes	"		yes	"	no	"	
418	6		20																				
419	60	60	89	89			3	yes	10	3,161	60		yes	no		yes	no		yes	yes	yes	yes	
420	60	60	175	165		5	8		10	4,278	60	yes	yes	yes		"	"		"	"	"	"	
421	60	60	24	21		1	4	no	10	550	60			"		"	"		"	"	"	"	
422	60	60	32	22	10		2	"	10	900	60	yes	no	no	no	"	"	no	"	no	no	"	yes
423	60	60	3	3			1	"	10	115	60					"	"		"	yes	"	"	
424	60	60	63	56	7		4	"	10	1,750	60			no	yes	"	"	yes	"	no	yes	"	yes
425	60	60	7	2	5				10	120	60					"	"		"	"	"	"	
426	66	66	6	5					11	220	60			yes		"	"		"	yes		"	
427	60	60	12	11					10	350	60			"	yes	"	"	yes				"	
428	48	48	7	5			1	no	8	150	60					"	"					"	
429	48	48	8	5					8	170	60					"	"					"	
430	48	48	6	3					8	120	60					"	"					"	
431	60	60	15	10					10	400	60			yes		"	"		yes	yes	yes	"	
432	60	60	30	12					10	350	60					"	"		yes	"		"	
433	60	60	35	11					10	290	60			no		"	yes		"	"	"	"	
434	6	6	9	5					10	250	60			"		"	"		"	"	yes	"	
435	6	60	55	50		1	no		10	2,000	60			yes		"	"		"	"	"	"	
436	60	60	62	62		1	2	"	10	2,500	60			"		"	"		"	no	no	"	
437	60	60	6	4	2				10	120	60					"	"		"	yes		no	yes
438	60	60	65	65			1	no	10	3,300	60			no		"	"		"	no	yes	yes	
439	60	60	75	75			2	"	10	2,570	60			yes		"	"		"	"	"	"	
440	60	60	85	85			1	"	10	3,757	60	no		"		"	"		"	"	"	"	
441	60	60	53	53			1	"	10	1,550	60			"		"	"		"	"	"	"	
442	60	60	35													"	"		"	"	"	"	
443	60	60	45	85	10		3	no	10	1,500	60			yes	yes	yes	no	yes	yes	yes	yes	yes	yes
444	60	60	80	70	10	3	23	"	10	1,000	60	no	no	no	no	"	"		"	"	"	"	
445	48	48	6	2	1				8	100	60					"	"		"	"	"	"	
446	60	60	15	4					10	300	60					"	"		yes	yes		"	
447	66	66	5	5					11	315	60					"	"		"	"	"	"	
448	60	60	8	8			2	no	10	95	60					"	"		"	"	"	"	
449	60	60	30	30					10	1,000	60			yes		"	"		"	no		"	
450	*	*	65	63					10	2,950	60			"		"	"		yes	yes	yes	"	

* 120 hour; running night and day.

Inspection book No. 10.

TABLE No. 8.—CONTINUED.—

No. given factory for 1935.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
451	Aug. 14	Ludington...	The Record	Newspaper & job printing	run.	full
452	" 14	"	Ludington Appeal	"	"	"
453	" 14	Butterville...	Butters & Peters Salt & Lumber Co.	Lumber and shingles	"	"
454	" 14	"	"	Salt	"	"
455	" 14	"	Mason & Oceana R. B. Shops.....	Cars repaired	"	"
456	" 15	Pontwater...	Pontwater Bedstead Co.	Furniture	"	"
457	" 15	"	J. Halstead	Tables	"	"
458	" 15	"	Sands & Maxwell	Lumber and shingles	"	"
459	" 15	"	Sands & Maxwell	Shingles	"	"
460	" 15	Hart	Sandusky Tool Co.	Lum. & dimension stock	idle	.....
461	" 15	"	Hart Cedar Lumber Co.	"	run.	part
462	" 15	Mears	C. Mears Estate	Lumber and shingles	"	full
463	" 16	Shelby	Alexander Patton	Lumber	idle	.....
464	" 16	"	Shelby Stave Factory	Staves	"	"
465	" 16	Whitehall	E-gle Tanning Works	Harness and fancy leather	run.	full
466	" 16	"	C. E. & M. B. Covell	Lumber and lath	"	"
467	" 16	"	Nufer Cedar Co.	Box shooks	"	"
468	" 16	"	Linderman Mfg Co.	Boxes	idle	.....
469	" 16	"	C. E. & M. B. Covell	Shingles	run.	full
470	" 16	"	Olsen & Youngquist	Floor, feed and lumber	"	"
471	" 16	"	Erichson, Steffee & Co.	General woodwork	"	"
472	" 17	"	Staples & Covell	Lumber and lath	idle	.....
473	" 17	Montague	Montague Iron Works Co.	Machinery and boilers	run.	full
474	" 17	"	Montague Roller Mills	Flour and feed	"	"
475	Sept. 24	N. Muskegon	Gow & Campbell	Lumber	"	"
476	" 24	"	Standard Box Shook Co.	Box shooks	"	"
477	" 24	"	F. Alberts & Co.	Lumber and shingles	"	"
478	" 24	Muskegon	C. & W. M. B. B. Shops	Locomotives and cars	"	part
479	" 24	"	D. A. Miner	Shingles	idle	.....
480	" 24	"	Veva & Bloodgood	Kindling wood	run.	full
481	" 24	"	John Torrent & Co.	Lumber	idle	.....
482	" 25	"	S. S. Watson & Co.	Excelsior & fire kindlers	run.	full
483	" 25	"	The Utility Co.	Wood novelties	"	"
484	" 25	"	Frank Cheeseman	General woodwork	"	"
485	" 25	"	Langland Mfg Co.	"	"	"
486	" 25	"	Muskegon Valley Furniture Co.	Furniture	"	"
487	" 25	"	McCracken & Hovey Car Co.	Freight cars	idle	.....
488	" 25	"	Munroe Mfg Co.	Lumber and box stock	run.	full
489	" 25	"	Sargent Mfg Co.	Invalid and hospital sup.	"	"
490	" 26	"	Wm. Heap	Closet seats and tanks	"	"
491	" 26	"	Palmer, Perkins & Co.	General woodwork	"	"
492	" 26	Muskegon H'ts	Morton Mfg Co.	Special machinery	"	"
493	" 26	"	Kelly Bros. Mfg Co.	Interior wood work	"	"
494	" 26	"	Shaw Electric Crane Co.	Electric cranes	"	"
495	" 26	"	Enterprise Foundry Co.	Castings	"	"
496	" 27	"	Muskegon Wood Rim Co.	Bicycle rims	"	"
497	" 27	"	Electric Alarm Co.	Electrical specialties	"	"
498	" 27	"	Enterprise Brass Works	Brass castings	"	"
499	" 27	"	Gray Bros. Mfg Co.	Folding bath tubs, etc.	"	"
500	" 27	"	Michigan Curled Hair Works	Curled hair and fertilizers	"	"

THIRD ANNUAL REPORT.

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District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
451	59	59	6	3	1				10	\$154	60			yes	yes	yes	no	yes	yes	yes	yes	yes	no
452	60	60	5	3	2				10	150	60			yes		yes							
453	60	60	65	65			1	no	10	2,600	60			yes									
454	60	60	50	50			5	no	10	1,800	60			yes			yes				yes		
455	60	60	10	10					10	700	60												
456	60	60	170	160			5	yes	16	4,100	60	yes	no	yes		yes	no				yes		
457	60	60	30	10					10	400	60				yes		no						
458	60	60	40	40					10	1,690	60												
459	60	60	30	30					10	1,170	60			no						no			
460	60		27																				
461	60	60	9	9					10	350	60					yes	no		yes	yes		yes	
462	60	60	26	13					10	500	60			yes		yes	yes		yes		no		
463	60		16																				
464	60		12																				
465	60		75	75					10	2,500	60	no	no	no		yes	no		yes	no		yes	
466	60	60	45	45					10	1,600	60			yes						yes			
467	60	60	32	28					10	1,000	60						yes			yes	yes		
468	60		50						10		60					yes					yes		
469	60	60	30	30					10	1,000	60			yes		yes	no		yes	yes	yes	yes	
470	60	60	12	9					10	300	60								yes	yes		yes	
471	60	60	15	11					10	325	60							no	no	yes			
472	60		70						10	1,500	60			yes	no	yes	no		yes	yes		yes	
473	60	60	60	15					10	182	60												
474	60	60	5	4	1				10	1,340	60												
475	60	60	41	41		1	1	no	10		60										yes		
476	60	60	30	25					10	1,000	60												
477	60	60	50	30					10	1,150	60												
478	54	48	183	168					9	7,500	60												
479	60		42																				
480	60	60	6	6					10	200	60					yes	no		yes	yes		yes	
481	60		65																				
482	60	60	7	7					10	168	60					yes	no		yes	no		yes	
483	60	60	10	3					10	150	60												
484	60	60	14	2					10	100	60									yes	no		
485	60	60	40	40		1	yes		10	1,200	60			yes							yes		
486	60	60	175	130					10	3,500	60	yes	yes				yes						
487	60		300						10	2,200	60												
488	60	60	100	100			2	yes	10	1,300	*30	yes	yes	yes		yes	no		yes	yes	yes	yes	
489	60	60	90	41			5	no	10	850	60												
490	60	60	15	15			1		10														
491	60	60	15	7					10	250	60								yes	no	no		
492	60	60	26	26					10	800	60	yes	yes	no						yes	yes		
493	60	60	125	119					10	3,600	*30			yes									
494	60	60	100	100		1	11	no	10	4,500	60												yes
495	60	60	40	18					10	1,500	60												
496	60	60	50	18					10	600	60								yes	yes	yes		
497	60	60	30	5					10	500	*30												
498	60	60	30	2					10	108	*30												
499	60	60	25	25					10	800	45	yes	yes							no	yes		
500	60	60	5	5					10	156	60									yes			

* Permit given by inspector.

Inspection book No. 11.

TABLE No. 3.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
501	Sept. 27	Muskegon	Muskegon Chemical Fire Eng. Co.	Chem. engines & brass w'k	run.	full
502	" 27	"	W. F. Wisselgel	Dressed lumber, etc.	"	"
503	Nov. 13	"	Michigan Washing Machine Co.	Washing machines & tube	"	"
504	" 13	"	Alaska Refrigerator Co.	Refrigerators	"	"
505	" 14	"	Vanderlaan & Scott	Cigars	"	"
506	" 14	"	Muskegon Milling Co.	Flour and feed	"	"
507	" 14	"	W. B. Jones	Lumber	"	part
508	" 14	"	Neal & Firman	Flour and feed	"	full
509	" 14	"	Muskegon Electric Light Co.	Electric light	"	"
510	" 14	"	E. H. Stafford Co.	Sch'l, church & office fur.	"	"
511	" 14	"	Rodgers Iron Manufact'g Co.	Saw mill machinery	"	part
512	" 14	"	Muskegon Gas Light Co.	Gas	"	full
513	" 15	"	Francis Jiroch	Cigars	idle	"
514	" 15	"	Morning News and News Reporter.	Job printing and binding	run.	full
515	" 15	"	Muskegon Chronicle.	"	"	"
516	" 15	"	People's Steam Laundry	Laundry work	"	part
517	" 15	"	Muskegon Steam Laundry	"	"	full
518	" 15	"	Watson & Fink.	Cigars	"	"
519	" 15	"	Thayer Lumber Co.	Lumber, lath, etc.	"	"
520	" 18	"	Davies Iron Works	Trucks, etc.	"	part
521	" 18	"	Barcus Bros.	Saws	"	"
522	" 18	"	Muskegon Boiler Works Co.	Boilers, etc.	"	"
523	" 19	"	Lakeside Iron Co.	Machinery and repairs.	"	"
524	" 19	"	P. Haydon Saddlery Hardware Co.	Hame woods	"	full
525	" 19	"	U. S. Baking Co. (Muskegon Br.)	Crackers, biscuits, etc.	"	part
526	" 19	"	Stewart-Hartshorn Co.	Curta's rollers	"	full
527	" 19	"	Muskegon Railway Co.	Electricity and car rep'rs	"	"
528	" 19	"	Muskegon Bottling Works	Carbonated drinks	"	"
529	" 19	"	Muskegon Brewing Co.	Beer	"	"
530	" 19	"	W. G. Watson & Co.	Dressed lumber, etc.	"	part
531	" 20	"	F. B. Pillsbury	Kindling wood	"	full
532	" 20	"	Hovey & McCracken	Lumber	idle	"
533	" 20	"	Crescent Manufacturing Co.	Nail keg material	run.	full
534	" 20	"	McGraft Lumber Co.	Sash, doors, etc.	"	part
535	" 20	"	McGraft Lumber Co.	Lumber	idle	"
536	" 20	"	Strong & McBride	Shingles	"	"
537	" 20	"	J. Loeschner Tannery Co.	Uppers, harness & leather	run.	part
538	" 20	"	Chase Bros. Piano Co.	Pianos	"	full
539	" 21	Grand Haven	Am. Mirror and Glass Beveling Co.	Mirrors	"	part
540	" 21	"	Grand Haven Electric Light Co.	Electric light	"	full
541	" 21	"	Silas Kilbourn & Co.	Tubs, pails, etc.	"	part
542	" 21	"	The Sterling Furniture Co.	Furniture	"	"
543	" 21	"	Challenges Corn Planter Co.	Corn planters, etc.	"	full
544	" 21	"	Dake Engine Manufact'g Co.	Engines and repairs	"	"
545	" 21	"	Archie Campbell	Castings	"	"
546	" 21	"	Globe Match Co.	Matches	idle	"
547	" 22	"	Grand Haven Steam Laundry	Laundry work	run.	part
548	" 22	"	The White Laundry	"	"	"
549	" 22	"	Grand Haven Courier and Journal	Printed matter	"	full
550	" 22	"	Grand Haven Leather Co.	Saddle and collar leather	"	part

THIRD ANNUAL REPORT.

149

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
501	60	60	50	24	---	---	---	---	10	\$500	60	yes	---	yes	yes	yes	no	---	yes	yes	no	yes	---
502	60	60	42	30	---	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	---
503	60	60	80	28	---	---	---	---	10	700	50	yes	no	---	---	---	---	---	---	---	---	---	
504	60	60	340	200	---	---	1	yes	10	5,000	50	---	yes	no	---	---	---	yes	---	---	---	---	
505	48	48	9	6	---	---	1	no	8	200	60	---	---	no	---	---	---	---	---	---	---	---	
506	66	66	26	19	1	---	---	---	10	627	60	---	---	yes	---	---	---	---	yes	yes	---	---	
507	60	30	21	21	---	---	---	---	10	385	60	---	---	---	---	---	---	---	---	---	yes	---	
508	60	60	3	3	---	---	---	---	10	120	60	---	---	no	---	---	---	---	---	---	---	---	
509	*	*	12	12	---	---	---	---	10	630	60	---	---	yes	---	---	---	---	---	---	---	---	
510	60	60	110	108	2	---	3	no	10	3,000	60	yes	yes	---	yes	---	yes	---	---	yes	---	yes	
511	60	48	80	35	---	---	---	---	10	1,500	60	---	---	---	---	---	---	---	---	---	---	---	
512	*	*	5	5	---	---	---	---	---	270	60	---	---	---	---	---	---	---	---	---	---	---	
513	48	16	5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
514	59	59	14	12	2	---	1	yes	10	600	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	
515	59	59	20	16	2	---	---	---	10	800	60	---	---	yes	yes	yes	---	---	yes	yes	---	yes	
516	60	48	24	2	7	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	
517	60	60	17	4	7	---	---	---	10	290	60	---	---	---	---	---	---	---	---	---	---	---	
518	48	48	9	9	---	---	1	no	8	350	60	---	---	---	---	---	---	---	---	---	---	---	
519	60	60	280	279	1	---	---	---	10	11,200	60	---	---	yes	---	---	---	yes	yes	yes	---	---	
520	60	20	10	10	---	---	---	---	10	80	60	---	---	---	---	---	---	---	---	---	---	---	
521	60	54	9	6	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	
522	60	54	35	18	---	---	1	no	10	650	60	---	---	---	---	---	---	---	---	---	---	---	
523	60	42	26	8	---	---	---	---	10	397	60	---	---	yes	---	---	---	---	---	no	---	---	
524	60	60	27	27	---	---	---	---	10	900	60	---	---	---	---	---	---	---	yes	yes	yes	---	
525	60	40	29	21	8	---	---	---	10	925	60	yes	yes	es	yes	---	---	---	---	yes	yes	yes	
526	60	60	200	196	1	---	12	---	10	5,700	50	---	---	---	---	---	yes	---	---	---	yes	---	
527	60	60	12	12	---	---	---	---	10	400	60	---	---	---	---	---	---	yes	---	---	---	---	
528	60	60	8	4	---	---	---	---	10	285	60	yes	yes	yes	---	---	---	---	---	---	---	---	
529	60	60	28	28	---	---	---	---	10	1,200	60	---	---	---	---	---	yes	---	---	---	---	---	
530	60	45	100	60	---	---	1	no	10	1,775	60	---	---	---	---	---	---	yes	---	---	yes	---	
531	60	60	9	9	---	---	---	---	10	280	60	---	---	---	---	---	---	---	---	---	---	---	
532	60	---	125	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
533	60	60	50	50	---	---	---	---	10	2,000	60	---	---	---	yes	yes	no	---	yes	no	---	yes	
534	60	48	50	40	---	---	---	---	10	2,500	60	---	---	yes	yes	---	yes	---	yes	yes	yes	---	
535	60	---	60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
536	60	---	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
537	60	54	100	41	1	---	---	---	10	1,760	60	yes	no	yes	---	yes	no	yes	yes	no	yes	yes	
538	60	60	200	75	---	---	---	---	10	2,800	50	---	yes	---	yes	---	---	---	---	yes	yes	---	
539	60	50	60	50	---	---	1	no	10	1,700	60	---	---	---	---	---	---	---	---	---	---	---	
540	†	†	4	4	---	---	---	---	10	145	60	---	---	yes	---	---	---	---	---	---	---	---	
541	60	54	125	50	---	---	7	---	10	1,000	60	---	---	---	---	---	---	---	---	no	no	---	
542	60	54	65	37	---	---	1	no	10	750	50	yes	yes	---	yes	---	---	---	---	---	---	---	
543	60	60	350	200	---	---	---	---	10	6,000	60	---	---	---	---	---	yes	---	---	---	yes	yes	---
544	60	60	14	14	---	---	---	---	10	600	60	---	---	---	---	---	---	---	---	---	---	---	
545	60	60	6	6	---	---	---	---	10	225	60	---	---	---	---	---	---	---	---	---	---	---	
546	60	---	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
547	60	48	11	2	3	---	---	---	10	125	60	---	---	no	yes	yes	no	yes	yes	no	yes	yes	
548	60	48	8	2	5	---	---	---	10	150	60	---	---	yes	---	---	---	---	---	yes	yes	yes	
549	59	59	7	3	4	---	---	---	10	150	60	---	---	---	---	---	---	---	---	---	---	---	
550	60	54	50	45	---	---	---	---	10	1,450	60	yes	yes	yes	---	---	no	---	---	---	---	yes	

* 168 hours; running all the time.
† 72 hours; running when light is needed.

Inspection book No. 12.

TABLE No. 3.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
551	Sept. 30	Grand Rapids	C. F. Nason	Lumber	run.	full
552	" 30	"	Sherwood & Swortfiguer	Straw and felt hats	idle	"
553	" 30	"	Gunn Folding Bed Co.	Folding beds and desks	run.	full
554	" 30	"	Fuller & Rice Lumber & Mfg Co.	General woodwork	"	"
555	" 30	"	Harrison Wagon Co.	Wagons and sleighs	"	"
556	Oct. 1	"	Kent Furniture Mfg Co.	Furniture	"	"
557	" 1	"	G'd Rapids Carved Moulding Co.	Carved moulding	"	"
558	" 1	"	Pa'rmer Laundry	Laundry work	"	"
559	" 1	"	Bayne Com. Photo Engraving Co.	Photos and engravings	"	"
560	" 1	"	Grand Rapids Veneer Works	Veneer and paints	"	"
561	" 2	"	Haney School Furniture Co.	School furniture	"	"
562	" 2	"	Grand Rapids Panel Co.	Graining plates	"	"
563	" 2	"	Alex. Fraser	Brush making machines	"	"
564	" 2	"	C. O. & A. D. Porter	Woodworking machinery	"	"
565	" 2	"	The Fox Machine Co.	Machinery and bicycles	"	"
566	" 3	"	Perkins & Co.	Bicycles, machinery, etc.	"	"
567	" 3	"	Grand Rapids Glass Co.	Mirrors	"	"
568	" 3	"	Rempis & Gallmeyer	Iron and brass castings	"	"
569	" 3	"	Valley City Top Factory	Buggy tops	"	"
570	" 3	"	Belknap Wagon and Sleigh Co.	Wagons and sleighs	"	"
571	" 3	"	Haven & Jordan	Wire work	"	"
572	" 4	"	Grand Rapids Leather Co.	Sole leather	"	"
573	" 4	"	H. D. Plumb	Flour and feed	"	"
574	" 4	"	Jacob Mol	Sorted rags	"	"
575	" 4	"	W. G. Shear	Carved moulding	"	"
576	" 4	"	Slooter Bros.	Brooms	"	"
577	" 4	"	Widdcomb Saw Mill	Lumber	idle	"
578	" 7	"	G'd Rapids School Furniture Co.	Opera chairs, etc.	run.	full
579	" 7	"	Wm. J. Fox	Excelsior	"	"
580	" 7	"	Baldwin, Tuthill & Bolton	Machinery	"	"
581	" 7	"	Grand Rapids Mattress Co.	Mattresses, springs, etc.	"	part
582	" 7	"	John A. Lemon	Cigars	"	full
583	" 7	"	Jackoski Bros.	"	"	full
584	" 8	"	Widdcomb Mantel Co.	Mantels and furniture	idle	"
585	" 8	"	Widdcomb Furniture Co.	Furniture	run.	full
586	" 10	"	Valley City Rattan Co.	Rattan goods	"	"
587	" 10	"	Grand Rapids Book Case Co.	Book cases and desks	"	"
588	" 10	"	Giesler & Fritz	Wagons and sleighs	"	"
589	" 10	"	Mueller-Black Co.	Furniture	"	"
590	" 10	"	H. G. Krekel	Mixed mortar	"	part
591	" 10	"	G. R. Brew's Co. and Bottl'g Dept.	Bottled beer	"	full
592	" 10	"	Wm. Hensler	Cigars	"	"
593	" 11	Talmdage	Francis Lord	Fruit packages	idle	"
594	" 14	Grand Rapids	United Marble Co.	Marble ornaments	run.	full
595	" 14	"	Harring & Attwood	Plumbers' supplies	"	"
596	" 14	"	Star Roller Mills	Flour	"	"
597	" 14	"	West Side Iron Works	Machinery & fire escapes	"	"
598	" 14	"	Hansen & Onus	Brass castings	"	"
599	" 14	"	Novelty Mfg Co.	General woodwork	"	"
600	" 14	"	J. G. Alexander Mfg Co.	Draught's & fold'g tables	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and for pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
551	80	60	26	26	---	---	---	---	10	\$950	60	---	---	yes	---	yes	no	---	yes	yes	---	yes	---
552	80	60	175	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
553	80	60	135	135	---	---	5	no	10	3,800	50	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	---	
554	80	60	114	113	---	---	---	---	10	3,763	50	---	---	---	---	---	---	---	---	---	---	---	---
555	80	60	170	102	---	---	---	---	10	3,000	60	yes	yes	---	---	---	---	yes	---	---	---	---	---
556	80	60	250	200	---	---	1	yes	10	6,000	50	---	---	---	---	---	---	---	---	---	---	---	---
557	80	60	17	17	---	---	---	---	10	550	†30	---	---	---	---	---	---	---	---	---	no	---	---
558	80	60	23	6	14	---	---	---	10	525	80	---	---	---	---	---	---	---	---	---	yes	---	yes
559	80	60	12	8	1	---	---	---	10	400	60	---	---	---	---	---	---	---	---	---	---	---	---
560	80	60	125	125	---	---	---	---	10	3,500	60	yes	no	yes	---	---	---	---	---	---	yes	---	---
561	80	60	78	73	5	---	---	---	10	2,500	50	---	---	---	---	---	---	---	---	no	---	---	yes
562	80	60	3	3	---	---	---	---	10	125	50	---	---	---	---	---	---	---	---	---	---	---	---
563	80	60	8	8	---	---	---	---	10	425	†30	---	---	yes	---	---	---	---	---	yes	---	---	---
564	80	60	17	17	---	---	---	---	10	640	45	yes	no	---	---	---	---	---	---	---	---	---	---
565	59	59	102	100	2	---	---	---	10	3,200	60	---	yes	---	---	---	---	yes	---	yes	yes	---	yes
566	80	60	120	50	---	---	---	---	10	2,800	50	---	---	---	---	---	---	---	---	---	---	---	---
567	80	60	7	7	---	---	---	---	10	375	60	---	---	---	---	---	---	---	---	---	---	---	---
568	80	60	14	9	---	---	---	---	10	450	60	---	---	---	---	---	---	---	---	---	---	---	---
569	80	60	8	1	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---
570	80	60	40	37	---	---	---	---	10	1,600	50	yes	yes	yes	---	---	---	no	yes	no	yes	---	---
571	80	60	3	2	---	---	---	---	10	104	60	---	---	---	---	---	---	---	---	---	---	---	---
572	80	60	30	30	---	---	---	---	10	1,080	60	no	no	---	---	---	---	---	yes	no	---	---	---
573	80	60	2	2	---	---	---	---	10	90	60	---	---	yes	---	---	---	---	---	yes	---	---	---
574	80	60	6	6	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---
575	80	60	3	3	---	---	---	---	10	100	60	---	---	---	---	---	---	---	yes	yes	---	---	---
576	80	60	10	8	---	---	---	---	10	250	60	---	---	---	---	---	---	---	---	---	---	---	---
577	80	60	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
578	80	60	532	543	9	---	---	---	10	16,500	50	yes	yes	yes	---	yes	no	no	yes	yes	yes	yes	yes
579	80	60	14	12	---	---	2	yes	10	270	50	---	---	---	---	---	---	---	---	---	---	---	---
580	80	60	20	20	---	---	---	---	10	600	50	---	---	---	---	---	---	---	---	---	---	---	---
581	80	48	60	22	8	---	---	---	10	800	50	yes	no	---	yes	---	---	---	---	no	no	---	yes
582	48	48	3	2	1	---	---	---	8	125	60	---	---	---	---	---	---	---	---	---	---	---	---
583	48	48	4	4	---	---	---	---	8	220	60	---	---	---	---	---	---	---	---	---	---	---	---
584	80	60	200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
585	60	54	700	400	---	---	6	yes	10	12,000	50	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
586	80	60	80	34	20	---	---	---	10	2,000	50	no	---	---	---	---	---	---	---	no	---	---	yes
587	80	60	40	34	1	---	2	no	10	1,200	50	---	no	---	---	---	---	---	---	---	---	---	---
588	60	60	12	6	---	---	---	---	10	300	50	yes	---	---	---	---	---	---	---	yes	---	---	---
589	80	60	9	6	---	---	---	---	10	240	50	---	---	---	---	---	---	---	---	---	---	---	---
590	80	40	4	4	---	---	---	---	10	140	60	---	---	---	---	---	---	---	---	---	---	---	---
591	60	60	8	4	---	---	---	---	10	200	80	---	---	---	---	yes	no	---	---	---	---	---	---
592	48	48	4	3	---	---	---	---	8	140	60	---	---	---	---	---	---	---	---	---	---	---	---
593	80	60	9	---	---	---	---	---	---	---	---	---	---	yes	---	---	---	---	---	---	---	---	---
594	80	60	4	4	---	---	---	---	10	260	60	---	yes	---	---	yes	no	---	yes	yes	---	yes	---
595	80	60	17	10	1	---	---	---	10	475	60	---	---	---	---	---	---	---	yes	---	---	---	---
596	*	*	40	40	---	---	---	---	10	1,500	80	---	---	---	---	---	---	yes	---	no	---	---	---
597	80	60	8	6	---	---	---	---	10	260	60	---	---	---	---	---	---	---	---	yes	---	---	---
598	80	60	3	2	---	---	---	---	10	130	60	---	---	yes	---	---	---	---	---	---	---	---	---
599	80	60	6	4	---	---	---	---	10	156	60	yes	no	---	---	---	---	---	---	no	---	---	---
600	80	60	4	4	---	---	---	---	10	120	60	---	---	---	---	---	---	---	---	---	---	---	---

* 144 hours; running night and day.

† Permit given by inspector.

Inspection book No. 13.

TABLE No. 3.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
601	Oct. 14	Grand Rapids	McDonald & Carroll.....	Boilers and smoke stacks	run.	full
602	" 15	"	Edward Tannewitz.....	Scales and machinery.....	"	part
603	" 15	"	J. B. Dennison & Co.....	Patterns, vices, etc.....	"	full
604	" 15	"	Grand Rapids Hand Screw Co.....	Hand screws, etc.....	"	"
605	" 15	"	Benedict Furniture Clamp Co.....	Furniture clamps.....	"	"
606	" 15	"	Valley City Desk Co.....	Desks.....	"	"
607	" 15	"	Peninsular Machine Co.....	Machinery and bicycles.....	"	"
608	" 15	"	Valley City Carpet Cleaning Co.....	Cleaning carpets.....	"	"
609	" 16	"	Nelson & Striegle.....	Files.....	"	"
610	" 16	"	Frank Edge & Co.....	Saws.....	"	"
611	" 16	"	Powers & Walker Casket Co.....	Caskets.....	"	"
612	" 16	"	Wolverine Spice Co.....	Spices and bak'g powder.....	"	"
613	" 16	"	Grand Rapids Brush Co.....	Brushes.....	"	"
614	" 16	"	H. B. Feather Co.....	Bedding and springs.....	"	"
615	" 16	"	Grand Rapids Fancy Furniture Co.....	Furniture.....	"	"
616	" 17	"	C. B. Clark.....	Step ladders, etc.....	"	part
617	" 17	"	Boesch Furniture Co.....	Furniture.....	"	full
618	" 17	"	Creecent Roller Mills.....	Flour.....	"	"
619	" 17	"	Wm. Hettterscheid.....	Patterns and book cases.....	"	"
620	" 17	"	G. R. Electric Light and Power Co.....	Electric light and power.....	"	"
621	" 17	"	M. W. Owens.....	Photographs.....	"	"
622	" 17	"	Grand Rapids Clock & Mantel Co.....	Clock cases and mantels.....	"	"
623	" 18	"	Troy Laundry.....	Laundry work.....	"	part
624	" 18	"	Valley City Steel Wire Spring Co.....	Wire springs.....	"	full
625	" 18	"	S. G. Staddon.....	Woolen rolls and yarn.....	"	"
626	" 18	"	Brechtling Bros.....	Wagons and sleighs.....	"	part
627	" 18	"	O. E. Glaser.....	Cigars.....	"	full
628	" 18	"	J. B. Folger & Sons.....	Carbonated drinks.....	"	"
629	" 23	"	W. T. Lamoreaux Co.....	Beans, grain, etc.....	"	"
630	" 22	"	Peterson & Willebrand.....	Lager beer.....	"	"
631	" 23	"	Star Knitting Works.....	Ladies' underwear.....	"	"
632	" 23	"	Grand Rapids Marble Co.....	Monuments.....	"	"
633	" 23	"	Aldine Manufacturing Co.....	Grates.....	"	"
634	" 23	"	Grand Rapids Brass Co.....	Brass goods.....	"	part
635	" 23	"	Model Mills.....	Flour and feed.....	"	full
636	" 23	"	Ooker & Ford Manufacturing Co.....	Sash, doors, etc.....	"	"
637	" 23	"	F. C. Miller.....	Lumber and boxes.....	"	part
638	" 23	"	Grand Rapids Gypsum Marble Co.....	Marble.....	"	full
639	" 23	"	Friction Set Works.....	Saw mill machinery.....	"	"
640	" 24	"	F. Hartman & Co.....	Machinery and scales.....	"	part
641	" 24	"	H. J. Hartman.....	Gray iron castings.....	"	"
642	" 24	"	Grand Rapids Stave Co.....	Staves, heading, etc.....	"	"
643	" 24	"	Phoenix Furniture Co.....	Furniture.....	"	full
644	" 25	"	Stow & Davis Furniture Co.....	Tables.....	"	"
645	" 25	"	Grand Rapids Cycle Co.....	Bicycles.....	"	"
646	" 25	"	Grand Rapids Wheelbarrow Co.....	Wheelbarrows.....	"	"
647	" 25	"	G. B. Manfg and Implement Co.....	Agricultural implements.....	"	part
648	" 25	"	Kiefer & Fecht.....	Sheepskins and wool.....	"	full
649	" 25	"	Walton Leather Co.....	Sole leather.....	"	"
650	" 26	"	Heys, Kirk & Muste.....	Cut stone.....	"	"

THIRD ANNUAL REPORT.

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District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1885.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
801	80	80	9	6					10	\$200	60					yes	no		yes	yes		yes	
802	80	54	12	4					10	300	60												
803	80	80	4	2					10	100	80												
804	80	80	28	27	1				10	1,000	50	yes	yes	yes			yes				yes		
805	80	60	4	2					10	100	60												
806	80	80	65	65					10	2,300	50	yes	yes	yes				no				yes	
807	80	80	9	9					10	500	50			no									
808	80	80	8	8	1				10	125	60			yes		yes		yes				yes	
809	80	60	4	4					10	120	50			yes									
810	80	60	3	3					10	170	80												
811	80	80	57	46	6				10	1,800	50	yes	yes		yes			yes				yes	yes
812	80	60	5	5					10	200	50											no	
813	80	60	180	60	120		8	yes	10	3,000	50	yes	yes	no	yes			yes				yes	yes
814	80	60	14	11	3				10	300	50		no	yes				no					
815	80	60	55	55					10	1,300	50									no	yes		
816	80	54	10	6					10	150	50									yes			
817	80	60	7	7					10	125	50												
818	*	*	29	29					10	1,600	60						yes		no				
819	80	60	6	1					10	100	60								yes				
820	*	*	25	25					10	1,375	80			yes									
821	80	60	8	4	2				10	200	80				yes						yes	no	
822	80	60	30	30		1	no		10	1,000	50								yes	yes		no	
823	80	50	9	4	3				10	200	45				yes						yes	no	no
824	80	60	4	2					10	100	50												
825	80	60	3	1	1				10	75	60								yes	yes			
826	80	54	9	8					10	450	50		no	yes	yes						no		
827	48	48	3	3					8	110	60												
828	80	80	9	7					10	350	60	yes	yes	yes					yes	yes			
829	54	54	60	7	7				9	600	†30				yes					no			yes
830	80	60	9	8					10	450	60												
831	80	80	54	6	48		2	no	10	1,400	50	yes	no		yes			yes		yes			yes
832	80	80	5	2					10	100	60												
833	80	80	40	18	4				10	900	50								yes	yes		no	yes
834	80	50	300	114	30		2	no	10	4,300	50	yes	no	yes	yes			yes			yes		
835	*	*	18	18					10	700	60									no			
836	80	80	47	46	1				10	2,100	†30	yes	no	no				yes		yes	yes		
837	80	48	27	27					10	1,100	60												
838	80	60	6	6					10	300	60			yes				yes		yes	no		
839	80	80	18	10					10	500	60												
840	80	54	10	6					10	200	60			yes								yes	
841	80	45	33	17					10	650	60												
842	80	48	110	105					10	3,200	60	yes	no	yes				yes					
843	80	60	550	251	9		2	no	10	9,000	50		yes	no	yes								yes
844	80	80	76	57	1				10	1,600	50			yes									
845	59	59	175	142					10	5,700	60				yes								
846	80	80	30	28					10	900	50			no									
847	80	54	40	36					10	900	†30	yes	no	yes				yes					
848	80	80	11	11					10	350	50												
849	80	60	33	32	1				10	1,325	45			no									
850	54	54	20	8					9	700	60												

* 144 hours; running night and day.

† Permit given by inspector.

Inspection book No. 14.

TABLE No. 8.—CONTINUED.—

No. given factory for 1935.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
651	Oct. 26	Grand Rapids	Diamond Wall Plaster Co.	Patented wall plaster	run.	full
652	" 26	"	H. A. Britt	Bottled beer	"	"
653	" 26	"	Chas. Schmidt & Bros.	Cut stone & monuments	"	"
654	" 26	"	C. J. Worfel	Cigars	"	"
655	" 26	"	Warren-Sohart Asphalt Co.	Paving asphalt	idle	"
656	" 28	"	W. T. Bentley	Barrels	run.	full
657	" 28	"	O. & W. Thum Co.	Fly paper	"	"
658	" 28	"	Metal Stamping and Spinning Co.	Ornamental metal	idle	"
659	" 28	"	Grand Rapids Seating Co.	Ch'ch, opera & sch'l fur.	run.	full
660	" 28	"	Wm. H. Pettit	Baby carriages and chairs	"	"
661	" 29	"	Valley City Dowel Co.	Dowels and mouldings	"	part
662	" 29	"	Ball Bros.	Ornamental glass	"	"
663	" 29	"	Grand Rapids Plaster Co.	Lead plaster	"	full
664	" 29	"	Diamond Wall Finish Co.	Wall finish	"	part
665	" 29	"	Grand Rapids Gypsum Works	Lead plaster	"	full
666	Nov. 1	Chilledale	Chilledale Paper Mills	Strawboard and paper	"	part
667	" 1	Rockford	John C. Smith & Son	Flour and feed	"	full
668	" 1	"	Rockford Veneer Co.	Veneer and build'g mat'l	"	"
669	" 2	Cedar Springs	George W. Sharer	Staves and heading	idle	"
670	" 2	"	J. H. Worden	Lumber, etc.	run.	full
671	" 2	Sparta	Sparta Brick and Tile Co.	Brick and tile	idle	"
672	" 2	"	Wal'n Folding Bed Co.	Folding beds	run.	full
673	" 2	Newaygo	Converse Mfg Co.	Furniture	"	"
674	" 2	"	Converse Mfg Co.	Boxes, crates, etc.	"	"
675	" 4	Ovid	Ovid Carriage Co.	Carriages and outters	"	part
676	" 4	"	D. E. Bryson Mfg Co.	Quilts and comfortables	"	"
677	" 5	St. Johns	St. Johns Mfg Co.	Tables	"	full
678	" 5	"	St. Johns Spring Co.	Agricultural springs	"	part
679	" 5	Ionia	D. L. & N. E. Car Shops	Locomo. and car repairs	"	"
680	" 5	"	Williams Mfg Co.	General woodwork	"	full
681	" 6	"	Ionia Pottery Co.	Flower pots, vases, etc.	"	"
682	" 6	"	Ionia Gas Light Co.	Gas	"	"
683	" 6	"	Michigan Clothing Co.	Clothing	"	"
684	" 6	"	Ionia Electric Co.	Electric lights	"	"
685	" 6	"	Capital Wagon Works	Wagons	"	"
686	" 6	"	R. A. Hearsey	General woodwork	"	"
687	" 6	"	Ionia Sentinel	Printed matter	"	"
688	" 6	"	Ionia City Steam Laundry	Laundry work	"	"
689	" 6	"	G. F. Faude	Cigars	"	"
690	" 6	"	Ionia City Mills	Flour and feed	"	"
691	" 7	"	Ionia Furniture Co.	Furniture	"	"
692	" 7	"	State House of Correction	Furniture, cane seats, etc.	"	"
693	" 7	Belding	Belding Bros. & Co.	Silk thread	"	"
694	" 7	"	Belding Mfg Co., Factory A	Refrigerators	"	"
695	" 7	"	Belding Mfg Co., Factory B	Refrigerators, etc.	"	"
696	" 8	"	Welch Casket Co.	Caskets	"	"
697	" 8	"	Belding Shoe Co.	Shoes	"	"
698	" 8	"	Ballon Basket Co.	Baskets	"	"
699	" 8	"	Grand Rapids Paper Box Co.	Paper boxes	"	"
700	" 8	"	Belding Cigar Co.	Cigars	"	"

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1895?	Hours per week, running full time?	Hours per week, at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
651	30	60	3	2	---	---	---	---	10	\$75	60	no	no	yes	---	yes	no	---	yes	no	---	yes	---
652	30	60	8	---	---	---	---	---	10	375	60	---	---	---	---	---	---	---	---	---	---	---	---
653	30	60	12	2	---	---	---	---	10	400	60	---	---	---	---	---	---	---	---	yes	---	---	---
654	18	48	7	4	---	---	---	---	8	240	60	---	---	yes	yes	---	---	---	---	---	---	---	---
655	30	---	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
656	60	60	25	17	---	---	---	---	10	500	60	---	---	---	---	yes	no	---	yes	yes	---	yes	---
657	30	60	150	23	34	---	3	yes	10	2,500	60	yes	yes	yes	yes	---	---	yes	yes	yes	---	yes	yes
658	30	---	15	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
659	30	60	134	131	3	---	8	no	10	1,600	50	---	---	---	---	yes	no	---	yes	yes	yes	yes	yes
660	30	60	25	7	3	---	---	---	10	200	60	---	---	yes	yes	---	---	---	---	yes	yes	yes	yes
661	30	30	5	4	---	---	---	---	10	110	60	---	---	---	no	---	---	---	---	---	no	---	---
662	30	40	10	2	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---
663	30	60	40	28	---	---	---	---	10	750	50	---	---	yes	---	---	---	yes	yes	yes	---	---	---
664	30	20	13	4	---	---	---	---	10	175	80	---	---	---	---	---	---	---	---	---	---	---	---
665	60	60	35	18	---	---	---	---	10	650	50	---	---	no	---	---	---	yes	---	---	---	---	---
666	* 60	40	16	---	---	---	---	---	10	800	60	---	---	---	---	---	---	---	---	no	---	---	---
667	* *	5	5	---	---	---	---	---	10	200	60	---	---	no	---	---	---	---	---	---	---	---	---
668	60	60	12	5	---	---	---	---	10	400	50	---	---	---	---	---	---	---	---	---	no	---	---
669	60	---	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
670	60	60	15	5	---	---	---	---	10	200	60	---	---	---	---	yes	no	---	yes	no	yes	yes	---
671	60	---	15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
672	60	60	173	100	---	---	2	yes	10	3,500	50	yes	yes	yes	---	no	no	no	yes	yes	yes	yes	yes
673	60	60	125	110	---	---	5	no	10	3,100	50	---	---	---	---	yes	---	yes	---	---	---	---	---
674	60	60	12	9	---	---	---	---	10	188	50	---	---	---	---	---	---	---	---	no	---	---	---
675	60	48	80	25	---	---	1	yes	10	2,000	60	yes	yes	no	---	---	---	---	---	yes	no	---	---
676	60	54	25	---	15	---	---	---	10	250	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
677	60	60	300	250	---	---	---	---	10	7,000	60	yes	yes	---	---	---	---	---	---	---	yes	---	---
678	60	54	25	25	---	---	---	---	10	800	60	---	---	---	---	---	---	---	---	---	---	---	---
679	60	54	161	16	---	---	---	---	10	6,000	60	---	---	yes	---	---	---	---	---	no	yes	---	---
680	60	60	18	18	---	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	---
681	60	60	14	14	---	---	---	---	10	800	60	---	---	yes	---	---	---	---	---	yes	---	---	---
682	† †	5	5	---	---	---	---	---	10	250	60	---	---	---	---	---	---	---	---	---	---	---	---
683	60	60	180	30	100	---	1	no	10	3,000	60	yes	yes	yes	yes	---	---	yes	yes	yes	---	---	yes
684	60	---	6	6	---	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	---
685	60	60	115	115	---	---	---	---	10	4,000	60	yes	no	yes	yes	---	---	yes	---	---	yes	---	---
686	60	60	4	3	---	---	---	---	10	182	60	---	---	---	---	---	---	---	---	---	---	---	---
687	60	60	9	6	2	---	---	---	10	240	60	---	---	---	---	---	---	---	---	---	---	---	yes
688	60	60	10	4	5	---	---	---	10	225	60	---	---	---	---	---	---	---	---	---	---	---	no
689	60	60	30	14	---	---	---	---	10	600	60	---	---	---	---	---	---	---	---	---	---	---	---
690	60	60	5	3	---	---	---	---	10	110	60	---	---	yes	---	---	---	---	yes	yes	---	---	---
691	60	60	115	115	---	---	4	no	10	3,800	60	yes	yes	---	yes	---	---	yes	---	no	yes	---	---
692	60	60	500	366	---	---	---	---	10	---	60	---	---	---	---	---	---	---	---	---	---	---	---
693	60	60	200	42	157	---	6	yes	10	3,000	60	---	---	---	yes	---	---	---	---	yes	---	---	yes
694	60	60	145	145	2	3	4	no	10	4,500	60	---	---	---	---	---	---	---	---	---	yes	---	---
695	60	60	60	43	---	---	---	---	10	1,700	60	---	---	---	---	---	---	---	---	---	---	---	---
696	60	60	5	2	---	---	---	---	10	1,800	60	no	no	---	---	---	---	---	---	---	---	yes	---
697	60	60	8	4	---	---	---	---	10	---	60	---	---	---	---	---	---	---	---	---	---	---	---
698	60	60	55	55	---	---	---	---	10	1,800	50	yes	yes	---	---	---	yes	---	---	---	---	---	---
699	60	60	14	2	17	---	1	no	10	400	60	---	---	---	---	---	---	---	---	---	---	yes	---
700	48	48	12	6	1	---	1	---	8	400	60	---	---	---	---	---	---	---	---	---	---	---	---

* 144 hours; running night and day.
† 168 hours; running all the time.
‡ 72 hours; run when light is needed.

† Just started.

Inspection book No. 15.

TABLE No. 8.—CONCLUDED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
701	Nov. 8	Belding	Wilson, Dimmick & Sinclair	General woodwork	run.	part
702	" 8	"	Richardson Silk Co.	Silk thread and braid	"	full
703	" 8	"	Belding Flour Mills	Flour and feed	"	part
704	" 8	Muir	Muir Washing Machine Co.	Washing machines	"	full
705	" 8	Lyons	Gothic Mills	Flour and feed	"	part
706	" 9	"	Beach Manufacturing Co.	Wind mills & plow repairs	"	full
707	" 9	Portland	Portland Furniture Co.	Furniture novelties	"	"
708	" 9	"	Portland Manufacturing Co.	Washing machines	"	part
709	" 9	"	Portland Milling Co.	Flour and feed	"	full
710	" 9	"	O. E. Robinson	Barrels	"	"
711	" 9	"	Wolverine Soap Co.	Soap	"	"
712	" 9	"	Brandfield Furniture Co.	Furniture	"	"
713	" 22	Ferrysburg	Johnston Bros.	Boilers, etc.	"	"
714	" 22	Spring Lake	Spring Lake Clinker Boat M'g Co.	Rowboats	"	part
715	" 22	"	Spring Lake Basket Co.	Fruit packages	idle	"
716	" 22	Fruitport	Spring Lake Iron Co.	Pig iron and charcoal	run.	full
717	" 25	Lake Odessa	Lake Odessa Manufacturing Co.	Washing machines, etc.	"	part
718	" 25	"	A. Heath & Son	General woodwork	"	"
719	" 25	Freeport	Cool & Curtis	Lumber, etc.	"	full
720	" 25	"	Job Cheesbrough	Handles, etc.	"	part
721	" 25	"	Fox & Son	Lumber	"	full
722	" 25	Lowell	Superior Mills	Flour and feed	"	part
723	" 25	"	Forest Mills	"	"	full
724	" 25	"	Lowell Woolen Mills	Flannels, yarn, etc.	idle	"
725	" 25	"	Lowell Cutter Co.	Cutter & carriage woods	"	"
726	" 25	"	W. J. Ecker & Son	Doors, blinds, etc.	run.	full

District No. 3.

L. C. F. Hintz, Deputy Inspector.

No. given factory for 1898.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity?	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly fenced and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
701	80	54	15	8	230	...	...	...	10	2400	60	...	...	no	...	yes	no	...	...	...	no	...	...
702	80	60	250	3	...	...	...	...	10	4,500	55	...	...	...	...	...	...	...	...	...	...	...	...
703	80	60	10	11	...	...	...	...	10	400	80	...	...	...	...	...	...	...	...	...	...	...	...
704	80	60	15	8	...	...	...	...	10	200	80	...	...	...	...	...	...	...	...	...	...	...	...
705	80	72	9	3	...	...	...	...	10	280	80	...	...	no	...	...	...	...	...	...	...	...	...
706	80	60	10	7	...	...	...	...	10	225	60	...	...	...	...	...	...	...	...	...	...	...	...
707	80	60	84	34	...	...	...	...	10	1,200	80	...	...	...	...	...	...	...	...	...	...	...	...
708	80	54	25	22	1	...	...	...	10	550	50	...	...	...	...	...	...	...	...	...	...	...	...
709	80	60	17	17	...	...	...	...	10	68	80	...	...	...	...	...	...	...	...	...	...	...	...
710	80	60	17	13	...	...	...	...	10	450	80	...	...	...	...	...	...	...	...	...	...	...	...
711	80	60	5	4	1	...	...	...	10	300	60	...	...	yes	...	...	...	...	...	...	...	...	...
712	80	60	20	4	...	...	...	...	10	150	80	...	...	...	...	...	...	...	...	...	...	...	...
713	80	60	70	25	...	...	...	...	10	875	80	...	...	no	...	...	...	...	...	...	...	...	...
714	80	48	3	3	...	...	...	...	10	165	80	...	...	...	...	...	...	...	...	...	...	...	...
715	80	...	28	8	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
716	+	+	50	50	...	...	...	...	10	2,000	...	...	...	no	...	...	...	...	...	...	...	...	...
717	80	54	15	7	...	...	...	...	10	240	80	...	...	...	...	...	...	...	...	...	...	...	...
718	80	40	6	4	...	...	...	...	10	158	80	...	...	...	...	...	...	...	...	...	...	...	...
719	80	60	10	5	...	...	...	...	10	125	80	...	...	...	...	...	...	...	...	...	...	...	...
720	60	80	18	4	...	...	...	...	10	260	60	...	...	yes	...	...	...	...	...	...	...	...	...
721	80	60	7	4	...	...	...	...	10	150	80	...	...	...	...	...	...	...	...	...	...	...	...
722	80	+	10	9	...	...	...	...	10	400	80	...	...	...	...	...	...	...	...	...	...	...	...
723	80	+	12	5	...	...	...	...	10	340	60	...	...	...	no	...	...	...	...	...	...	...	...
724	80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
725	60	...	75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
726	60	60	9	7	...	...	...	...	10	230	60	...	...	yes	yes	yes	no	...	...	...	yes	yes	...

* 144 hours; running night and day.

† 168 hours; running all the time.

‡ 108 hours.

DEDUCTIONS FROM TABLE NO. 3.

The third factory inspection district is composed of the counties of

Benzie,	Lake,	Newaygo,
Clinton,	Manistee,	Oceana,
Ionia,	Mason,	Ottawa,
Kent,	Muskegon,	Wexford.

The district is an important one, embracing as it does the great furniture manufacturing center of Grand Rapids, where the headquarters of the deputy are located.

During the year 726 factories were inspected. Their manufacturing interests are wide and varried, and are classified under 157 different heads, as follows:

Spices, etc.	1	Saws and edge tools	3
Pants and overalls	1	Charcoal and wood alcohol	1
Furniture	41	Blow pipes	2
Machinery, bicycles, etc.	25	Tin, copper, sheet iron, etc.	2
Belting and fly netting	1	Sheet metal, etc.	3
Blank book and book binding	4	Stencils, stamps and seals	1
Tents, awnings, etc.	2	Trunks and valises	1
Photographs	7	Carpet sweepers	2
Shoes and shoe uppers	6	Men's clothing	4
Electric light and power	10	Fur goods	1
Electroplating, engraving, etc.	7	Seeds cleaned and sorted	1
News paper and printed matter	42	Wholesale millinery	2
Embalming fluid	1	Laundry work	17
Cash registers, show cases, etc.	2	Cigars	31
Sporting goods and barbers' supplies	2	Flour and feed	28
Button fasteners	1	Pressed hay	1
Household novelties	2	Baked goods and confectionery	14
Boilers, stacks, etc.	10	Wind mills	1
Brass goods	9	Tile, brick, etc.	8
Ball bearing axles	1	Plumbing material	3
Freight cars and car repairing	7	Wagons, carriages, etc.	20
		Salt	14

Interior woodwork.....	1	Boxes.....	2
General woodwork.....	24	Fertilizer and plastering hair.....	1
Patterns, models, etc.....	3	Wire work.....	1
Flower pots and vases.....	2	Wheelbarrows.....	1
Beer, etc.....	7	Ornamental glass.....	1
Refrigerators and corn plant- ers.....	6	Vapor engines and launches.....	2
Jewelry.....	1	Vapor and gas stoves.....	1
Caskets.....	3	Pig iron and charcoal.....	1
Flannels, yarn, etc.....	2	Land plaster.....	3
Gas and coke.....	3	Dressed lumber.....	10
Cigar boxes.....	1	Butter plates.....	3
Paper boxes.....	2	Cooperage.....	12
Beans, grains, etc.....	1	Dresses, curtains, etc.....	1
Grates.....	1	Umbrellas and parasols.....	1
Agricultural implements.....	2	Clothing cleaned and dyed.....	1
Sheep skins and wool.....	1	Underwear.....	2
Paving asphalt.....	1	Neckties.....	1
Fly paper.....	1	Carpet beaters.....	1
Ornamental metal works.....	1	Brushes.....	2
Mirrors.....	2	Combined mantel and clothes bars.....	1
Wall finish.....	1	Cut stone, monuments, mar- ble, etc.....	8
Straw board and paper.....	1	Croquet sets and ball bats.....	1
Row boats.....	1	Patent medicine drugs, ex- tracts, etc.....	3
Silk thread.....	2	Baking powder and bluing.....	1
Baskets.....	1	Paints, stains, etc.....	1
Singletrees and hame fixtures.....	3	Crayons and chalk.....	1
Tower clocks.....	1	Building material.....	4
Emery wheels.....	1	Musical instruments.....	2
Electric cranes.....	1	Furnaces.....	2
Electrical specialties.....	1	Carpets and rugs.....	1
Castings.....	2	Wooden shoes.....	1
Folding bath tubs, etc.....	1	Tinware.....	1
Chemical engines and brass works.....	1	Eave troughs.....	1
Washing machines, etc.....	4	Brooms and mops.....	6
Curtain rollers.....	1	Closet seats and tanks.....	2
Carbonated drinks.....	3	Fire ladder and trucks.....	1
Sash, doors and blinds.....	2	Alabastine,plastico,plaster,etc.....	6
Engine and repairs.....	1	Lumber, lath and shingles.....	87
Invalid and hospital supplies.....	1	Files.....	1
Harnesses.....	6	Molding, dowels, etc.....	7
Fruit packages, etc.....	6	Organ stock.....	1
Shirts.....	6	Bent work.....	1
Carpet cleaning.....	4	Excelsior.....	3
Wood working machinery.....	2	Bedding, mattresses, springs, etc.....	6
Interior house finishing.....	2	Sorted rags.....	2
Overalls and draperies.....	1	Corsets.....	1
Grey iron castings.....	2	Railroad supplies.....	1
Wood ornaments.....	6	Leathers.....	9
Bowls, trays and clothes pins.....	3		
Turning.....	9		

FACTORY INSPECTION.

Staves, heading, etc.	6	Mixed mortar	1
Last blocks	1	Scales, etc.	2
Chair stock, etc.	1	Furniture, clamps and hand	
Fire and kindling wood	3	saws	2
Matches	1	Piano cases	1
Straw and felt hats	1	Veneer	7
Graining plates	1	Glue, fertilizer, soap, etc.	3
Brush making machine	1	Ladders, screens, etc.	2
Buggy tops	1		
Whole number factories inspected			726

Number of factories running	669
Number of factories idle	57

Whole number of factories inspected

726

Number of factories running full time	604
Number of factories running part time	65
Whole number of factories running	669

These figures show that about 8 per cent of the factories in this district are idle, and of those running a little over 90 per cent are running full time.

HOURS OF LABOR PER WEEK.

Number running 168 hours per week	4
Number running 144 hours per week	7
Number running 120 hours per week	1

Whole number running double force

12

Number of hours per week when running full time	44,671
Number of hours per week at present	40,004

Hours lost per week

4,667

Average hours per week when running full time	61½
Average hours per week at present	59¾

Here is a loss each day of over 77 days of ten hours, 466 days weekly, over 2,000 monthly and 24,000 days each year, computed at \$1.26 per day, the average paid factory employees in this district, and we find in this matter of short time a daily loss of \$97.02, a weekly loss of \$532.12, a monthly loss of \$2,522, a yearly loss of \$30,270.

Ten hours is generally accepted as a day's work. Less than 2 per cent of the factories running work a day and night force.

AS TO EMPLOYES.

Number employed when running full capacity.....	34,044
Number employed at present.....	25,052
Number less full capacity.....	8,992
Number of males employed at present.....	23,102
Number of females employed at present.....	1,950
Whole number employed at present.....	25,052

These deductions show that these factories are now employing 26 per cent less operatives than if they were running up to their full capacity. In other words, the same plants could employ 8,982 more persons and do more than one-quarter more business.

Here is an enormous loss to labor. Were these factories running full capacity, even at the wages now paid, these 8,992 more employees would be paid over \$11,329 daily, \$67,979 weekly, \$294,578 monthly, or \$3,534,935 each year. This, added to the \$30,270 lost by running short time, and there is an annual loss to labor in these 669 factories or \$3,565,205.

The number of female employees in this district is less than 8 per cent of the whole number of employees. They are employed in 191 factories, while males work in all but two.

CHILD LABOR.

Number of factories where children under fourteen years of age were found.....	21
Number of children found employed.....	40

All children under 14 years of age were ordered discharged immediately.

Number of factories that employ children over 14 and under 16...	140
Number of such children employed.....	472
Number of male children employed under 16.....	415
Number of female children employed under 16.....	57

Whole number between 14 and 16 employed..... 472

Number that keep registers and statements on file for children employed.....	43
Number that do not keep such registers and statements.....	94
Number that do not answer.....	3

Whole number employing children under 16..... 140

As will be seen from the above, a large number of those employing children have failed to keep registers and statements on file for such children. In all such cases orders were given that the law must be complied with. Employers are generally willing to obey the law when they understand its provisions.

MINORS.

The part of the law which prohibits females under 21 and males under 18 from working more than 60 hours in one week is well observed in this district, the average hours for each week being $59\frac{1}{4}$. No place in the district was found where this class of employes were allowed to clean machinery while in motion.

RELATIVE TO WAGES.

Number that say wages have been increased since, Jan. 1, 1894.....	49
Number that say wages have been reduced since Jan. 1, 1894.....	25
Number that say wages have not been increased nor reduced since Jan. 1, 1894	577
Number that do not answer.....	18
Whole number of factories running	669
Number that give per cent of decrease.....	24
Number that give per cent of increase.....	48
Average decrease	$12\frac{3}{4}$ per cent
Average increase	$13\frac{1}{16}$ per cent

A little over 7 per cent of these factories have increased wages since January 1, 1894, while about $3\frac{1}{2}$ per cent have reduced the wages in that period. This shows that there has been no material change in wages paid during this time.

Aggregate amount of monthly pay roll for the factories which were running.....	\$821,732
Average for each factory	1,228
Average per month for each employe.....	\$32.80

It will be seen from the figures given that in this district the employes of these manufacturing places received only a little over \$1.25 per day. It is probable that the manufacturers do not always give the accurate amount of their pay rolls. The above figures are as given to the inspector.

DINNER HOUR.

Number of factories that allow 60 minutes for dinner.....	522
Number of factories that allow 55 minutes for dinner.....	1
Number of factories that allow 50 minutes for dinner.....	113
Number of factories that allow 45 minutes for dinner.....	17
Number of factories that allow 30 minutes for dinner.....	13
Number of factories that allow 25 minutes for dinner.....	2
Number not answering	1

Whole number of factories running 669

As will be seen, a great majority of these factories give their employees a full hour for the noon-day meal. Only 15 factories asked permission to allow less than the 45 minute limit, for which request good reason was shown, and granted.

HOISTING SHAFTS AND ELEVATORS.

Number that have hoisting shafts and well-holes properly inclosed and secured	157
Number that do not have them inclosed and secured.....	13
Number that do not answer.....	499

Whole number of factories running 669

In most of these factories where there was no answer to this question, there are no hoisting shafts or well-holes.

Number that have automatic trap doors or gates provided in all floors where elevators are used	102
Number that do not have such doors and gates.....	63
Number that do not answer.....	504

Whole number of factories running 669

But very few of these 504 that give no answer have elevators in use, a large proportion being in one story buildings.

STAIRS.

Number that have stairs properly protected.....	405
Number that do not have stairs properly protected.....	65
Number that do not answer.....	199

Whole number of factories running 669

As a rule, stairs are properly protected with hand rails and rubber on the steps, where necessary. A large per cent of these factories have no use for stairs.

Number that have stairs properly screened	165
Number that do not have stairs properly screened.....	11
Number that do not answer.....	493
Whole number of factories running	669

This looks at first sight that the most of these factories were evading this section of the law, but this part of the law only refers to factories using stairs where females are employed. There is no hesitancy on the part of operators to provide these requisites.

DOORS.

Of the 669 factories running, only 5 were found where doors did not swing outward or slide where practicable. In these changes were ordered, those interested readily seeing the necessity for these changes. Nine places were found where doors were locked or bolted during working hours, and in these this practice was ordered discontinued.

FIRE ESCAPES.

Comparatively only a small per cent of these factories need fire escapes but 27 places were found where this important factor in case of fire was needed and had not been provided. Orders were at once given for their erection.

MACHINERY, ETC.

The factories inspected where machinery is used were generally provided with proper shifters for throwing belts on and off and with loose pulleys where possible. Only 7 places were found delinquent in this respect.

Number that have their vats, pans, and all machinery properly guarded	413
Number where they are not guarded.....	119
Number where there is no machinery, etc.....	137
Whole number of factories running	669

Many of those not sufficiently guarded were small matters, such as set screws, etc., but they are no less dangerous, and a prompt compliance with the law was ordered.

DUST ARRESTERS.

In the matter of dust arresters or exhaust fans for carrying off dust, 62 places were found lacking in this essential, while 181 had them. Orders were given for their construction, and many have complied or are complying with the law.

SANITARY.

In regard to sanitary conditions, only four factories were reported without suitable washrooms and water closets. A compliance with this part of the law is generally voluntary, operators conceding its necessity.

As to separate water closets for females, 27 places were found where changes were necessary, and were promptly ordered.

REMARKS.

A study of the table will be interesting, as comparisons between factories can be made, and much information gained not summarized in these deductions.

Changes ordered and the accidents reported follow this, the number preceding the paragraph being the number given the factory, as will be seen by the table.

CHANGES ORDERED DURING YEAR.

DISTRICT NO. 3.

[The number refers to the inspection number in table.]

- No. 2.—Ordered statements placed on file of all children employed under the age of 16 years; automatic gates at elevator openings and door changed to swing outward.
- No. 4.—One door changed to swing outward and protection for elevator ordered.
- No. 6.—Required one door changed to swing outward.
- No. 12.—Ordered automatic gate at elevator opening on first floor.
- No. 14.—Ordered statements placed on file of all children employed under 16 years of age, and one handrail on stairs in power house. (Complied with the law at once.—Insp.)
- No. 15.—Ordered one boy under the age of 14 years discharged, and automatic gates for elevator in finishing and shipping department.
- No. 18.—Ordered one balcony fire escape at the two center windows on the rear of building.
- No. 23.—Automatic trap doors at elevator openings ordered.
- No. 24.—Ordered automatic gates for elevator.
- No. 25.—Required a balcony fire escape at rear of building.
- No. 27.—Ordered separate closets for females.
- No. 36.—Ordered one boy under the age of 14 years discharged and statements placed on file of all children under the age of 16 years.
- No. 41.—Ordered automatic trap doors for two elevators, and obstruction to fire escape removed.
- No. 46.—Handrail on stairway ordered.
- No. 49.—Required a balcony fire escape on north side of building.
- No. 50.—Ordered several set screws covered or removed.
- No. 54.—Ordered statements placed on file with names and ages of all children employed under 16 years of age.

- No. 57.—Required registers kept of all children employed under the age of 16 years, and automatic gates for elevator on each floor.
- No. 58.—Automatic gates for elevator in finishing and shipping room ordered.
- No. 60.—Ordered belts of groover on second floor, arm sander, borer, and trimmer on third floor cased in, and an iron stairway to roof in rear of building.
- No. 79.—Ordered one belt guarded, and one set screw covered.
- No. 82.—Ordered register kept of all children under the age of 16 years.
- No. 88.—Ordered statements placed on file of all children employed, under 16 years of age.
- No. 93.—Required statements placed on file with names and ages of all children employed under the age of 16 years, and better sanitary condition of closets.
- No. 104.—Ordered fire escape extended to upper floor.
- No. 111.—Ordered stairs to front room screened, and proper handrails provided.
- No. 114.—Ordered statements placed on file for one girl, and two fire escapes on rear of building. (Complied with the law at once.—Insp.)
- No. 117.—Ordered belts, cog gearings, and pulley guarded on brick machine.
- No. 122.—Separate closets ordered for females.
- No. 123.—Ordered a separate closet for females.
- No. 126.—Required registers kept of all children under the age of 16 years.
- No. 127.—A balcony fire escape ordered on rear of building.
- No. 128.—Balcony fire escape on south side of building ordered.
- No. 131.—Ordered registers kept of all children employed under 16 years of age; automatic gates for elevator on each floor, and balcony fire escape on south side of building. (Complied with the law at once.—Insp.)
- No. 135.—Ordered a new closet.
- No. 136.—Automatic gates for elevators on each floor ordered.
- No. 137.—Required roof escape kept open and ready for use at all times.
- No. 148.—Balcony fire escape ordered on front of building.
- No. 149.—Automatic protection for elevator ordered.
- No. 150.—Ordered two boys under 14 years of age discharged, and better system of dust arresters for sander and three stickers.
- No. 151.—Required belt of dynamos guarded.
- No. 153.—Found automatic gates hung up, ordered the practice stopped, and gates kept in place at all times.

- No. 154.—Ordered handrail and railing around opening; belts guarded and cased, and ventilator for boiler room.
- No. 157.—Automatic trap doors at elevator openings on each floor; doors to swing outward, and another stairway to top floor or balcony fire escape ordered. (Complied with the law at once.—Insp.)
- No. 158.—Ordered automatic gates for two elevators on each floor, and guards for cog gearing on two drop machines and mixers.
- No. 160.—Automatic protection for elevator openings on each floor, and a balcony fire escape on south side of building ordered.
- No. 162.—Required two set screws on line shaft covered or removed.
- No. 166.—Ordered balcony fire escapes for west side of building. (Complied with at once.—Insp.)
- No. 171.—Separate closets for females required.
- No. 178.—Ordered a separate closet for females.
- No. 183.—Required a separate closet for females.
- No. 186.—Ordered handrail at stair opening on second floor.
- No. 189.—Required statements placed on file of all children employed under 16 years of age.
- No. 197.—Ordered longer dinner hour; all belts running through to second floor cased in, and fly wheel in engine room guarded on one side.
- No. 205.—Ordered belts running through to second floor cased in.
- No. 206.—Ordered automatic gates for elevator on each floor, and fire escape on rear of building.
- No. 207.—Statements required to be placed on file of all children under the age of 16 years, and automatic gates for elevator on each floor.
- No. 208.—Better system of dust arresting ordered.
- No. 209.—Ordered belt of rip saw guarded, and floor repaired.
- No. 213.—Ordered proper shifters on buzz planer, tenoner, and dove tailer, and guard for belt of buzz planer side of stairway.
- No. 215.—Required guard on fly wheel in engine room.
- No. 217.—Ordered new closets, with good sanitary conditions. (Complied with at once.—Insp.)
- No. 222.—Belt of washer required guarded. (Complied with at once.—Insp.)
- No. 224.—Ordered belts of two saws guarded; back guard for swing saw, and automatic gates for one elevator.

- No. 226.—Required system of dust arresting; belt of band saw cased in, and factory kept in clean condition.
- No. 228.—Set screws on filling mills covered or removed, and guard for fly wheel in engine room ordered.
- No. 230.—Ordered statements placed on file of all children employed under 16 years of age.
- No. 231.—Guards for belts of sanders and fly wheel in engine room ordered.
- No. 232.—Required balcony fire escape, and guard for fly wheel in engine room.
- No. 233.—Handrail for stairs ordered. (Complied with at once.—Insp.)
- No. 234.—Ordered handrail for stairs, and guard for belts of saw on second floor.
- No. 235.—Ordered guards for main belt and pulley, cogs and belt running crusher, and cog gears running stucco works.
- No. 236.—Ordered registers kept of all employed under the age of 16 years.
- No. 237.—Ordered guard for fly wheel for pumping engine, and railing for platform of mixing mills.
- No. 241.—Automatic gates for elevator openings on each floor ordered.
- No. 242.—Ordered a stairway from large door in third story to platform below.
- No. 243.—Ordered handrails on two stairways.
- No. 244.—Required statements placed on file of all children employed under 16 years of age.
- No. 245.—Ordered statements filed with names and ages of all children under 16 years, and automatic gates for elevator.
- No. 248.—Ordered statements placed on file of all children employed under the age of 16 years, and belts of two stickers cased in.
- No. 250.—Ordered three girls discharged under the age of 14 years; registers kept of all under the age of 16 years; handrail on one stairway, and railing around opening.
- No. 251.—Balcony fire escape for east side of brick building ordered.
- No. 254.—Automatic trap doors for two elevators, and handrail for two stairs ordered.
- No. 255.—Required four boys under 14 years of age discharged, and three set screws covered or removed.
- No. 256.—Ordered one boy discharged under 14 years of age; handrail on stairs, and railing on passage to dry house.
- No. 259.—Handrails on three stairways, and guards for two cog gears and fly wheel in engine room ordered.

- No. 263.—One elevator enclosed on one side, and guards for four belts running through to second floor required.
- No. 265.—Ordered handrails on two flights of stairs, and railing around opening on second floor.
- No. 266.—Ordered main belt in engine room guarded.
- No. 268.—Statements placed on file of all children employed under 16 years of age required.
- No. 269.—A number of set screws in different parts of the factory ordered covered or removed.
- No. 271.—Ordered proper shifters for belts running ironer and starcher; guards for belt of extractor, and cog gearing on two ironers.
- No. 272.—Required all belts running through to second floor cased in; handrails around stairs, and railing around opening on second floor.
- No. 274.—Ordered handrail on stairway, and three belts running through to second floor cased in.
- No. 280.—Ordered registers kept of all children under the age of 16 years; automatic gates for elevator openings, and railing around fly wheel in engine room.
- No. 281.—Guards for fly wheel in basement and on bolting chests ordered.
- No. 283.—Automatic trap doors for elevator openings ordered.
- No. 284.—Required cog gearing of ironer, and belt of extractor guarded.
- No. 285.—Better system of dust collectors ordered.
- No. 286.—Ordered one boy under 14 years of age sent home, and statements placed on file of all children under 16 years of age.
- No. 287.—Ordered one boy under 14 years of age discharged; registers kept of all children employed under the age of 16 years; automatic protection for elevator, and guard for fly wheel in engine room.
- No. 288.—Required two boys sent home under the age of 14 years.
- No. 289.—Separate closets for females ordered.
- No. 290.—Handrail on two flights of stairs and railing around opening on second floor required.
- No. 293.—Ordered statements placed on file of all children under the age of 16 years; proper shifters for belts of sander and stamping machine, and guards for same.
- No. 298.—Handrail on rear stairway required.
- No. 300.—Ordered handrail on one stairway.
- No. 301.—Separate closet for females ordered.

- No. 302.—Ordered one handrail on stairway, and hanging guard for edger saws.
- No. 303.—Cog gearing in lower part of mill required guarded.
- No. 305.—Required registers kept of all children employed under 16 years of age; hand-rail on stairway; railing around opening, and guards for all rip saws.
- No. 306.—Ordered statements placed on file of all children employed under the age of 16 years.
- No. 314.—Ordered a shifter provided for the belt of band saw, and the belt cased in.
- No. 316.—Three boys under the age of 14 years ordered discharged.
- No. 319.—Required registers kept of all children employed under 16 years of age.
- No. 321.—Required handrails placed on all stairways, and railings at openings on each floor.
- No. 322.—Statements placed on file of all children employed under the age of 16 years, and railing around fly wheel in engine room ordered.
- No. 323.—Ordered handrail on stairway; railing around opening; belt of edger cased in, and one set screw in lower part of mill covered or removed.
- No. 324.—A back guard for cut off saw ordered.
- No. 327.—Ordered stairs removed to a safer place; handrail provided, and back guard for two cut off saws.
- No. 328.—Required handrail on one stairway.
- No. 329.—Required registers kept of all children employed under 16 years of age, and guards for fly wheel of planing mill.
- No. 330.—Ordered statements placed on file of all children employed under the age of 16 years; guard on belt of dowel machine, and one set screw in lower part of mill ordered covered or removed.
- No. 335.—Required statements placed on file of all children employed under 16 years of age, and one set screw in lower part of mill covered or removed.
- No. 336.—Ordered proper shifters provided for belts of one cut off saw and two boring machines, and two set screws on same covered or removed.
- No. 337.—Handrail on one stairway, guards for slab saws and belt of edger ordered.
- No. 338.—Ordered statements placed on file of all children employed under the age of 16 years.
- No. 339.—Required handrail on one flight of stairs.
- No. 340.—Handrail on all stairs; railing along grain bins, and fly wheel in engine room ordered guarded.
- No. 342.—Ordered handrail on one stairway; railing around two grainers, and closets for females removed to more desirable place.

No. 349.—Required statements placed on file of all children employed under 16 years of age.

No. 351.—Separate closets required for females.

No. 357.—Ordered guards for cogs of two ironers, and separate closet for females.

No. 361.—Required two closets provided.

No. 363.—Ordered registers kept of children under the age of 16 years, and guard for belt of band saw in pattern room.

No. 366.—Ordered blowers provided for the gummers.

No. 368.—Ordered blowers provided for gummers.

No. 374.—Required hood placed over the heading saw.

No. 376.—Required registers kept of all children under the age of 16 years, and hand-rail on one stairway.

No. 377.—Ordered statements placed on file of all children employed under 16 years of age.

No. 378.—Ordered hanging guard for trimmer saws; guards for cog gearing and belts in stave mill; floor of same repaired, and closets put in better sanitary condition.

No. 379.—Ordered statements placed on file of all children employed under the age of 16 years.

No. 381.—Required statements placed on file of all children employed under 16 years of age.

No. 383.—Ordered automatic gates for elevator; guards for belts of drawer, fitter and band saws, and all dust creating machinery connected with blowers.

No. 387.—Required hand rail placed on stairway and railing around opening.

No. 388.—Required blowers provided for all gummers.

No. 390.—Ordered statements placed on file of all children employed under the age of 16 years, and gummers provided with blowers.

No. 394.—Required registers kept of all children under 16 years of age, and handrails provided for two flights of stairs.

No. 397.—Fly wheel of engine in cooper shop required to be guarded.

No. 399.—Ordered railing placed around opening of grainers in salt block.

No. 400.—Handrail on one stairway; railing around opening, and guard for fly wheel in engine room ordered.

No. 454.—Ordered cog gearing on bolting chests covered.

No. 406.—System of dust arresters for emery wheels and buffer ordered.

- No. 410.—Required statements placed on file of all children employed under the age of 16 years.
- No. 411.—Ordered railings at exposed parts of fly wheel in engine room.
- No. 413.—Ordered statements placed on file of all children employed under the age of 16 years, and back guard for cut off saw.
- No. 414.—Ordered statements placed on file of all children employed under 16 years of age.
- No. 416.—Required one boy under 14 years of age discharged, and guards for all belts running through floor in dowel room.
- No. 417.—Ordered registers kept of all children under the age of 16 years; back guard for swing saw; railing around exposed parts of fly wheel in engine room, and system of dust arresters.
- No. 419.—Handrail on one stairway in mill required.
- No. 420.—Ordered five boys under 14 years of age discharged.
- No. 421.—Required one boy under 14 years of age sent home, and registers kept of all children employed under the age of 16 years.
- No. 422.—Ordered statements placed on file of all children employed under 16 years of age; automatic gates for elevator; handrail on all stairways, and guards for cog gearing on pin machine.
- No. 424.—Ordered registers kept of all children under the age of 16 years; handrail on three stairways, and guards for cog gearing on two automatic lathes.
- No. 425.—Cog gearing of two ironers ordered covered.
- No. 428.—Required registers kept of all children employed under the age of 16 years.
- No. 431.—Ordered railing placed around floor opening of smoke stack.
- No. 433.—Handrail on stairway to pattern room required.
- No. 434.—Handrail on one stairway ordered.
- No. 435.—Ordered statements placed on file of all children employed under the age of 16 years.
- No. 436.—Required one boy under the age of 14 years discharged; statements placed on file of all children under 16 years of age, and hood on heading saw in cooper shop.
- No. 437.—Required another closet to be provided.
- No. 438.—Ordered statements placed on file of all children employed under the age of 16 years; handrails on two flights of stairs; railing around openings, and guard for back of band saw.
- No. 439.—Required railing placed around pocket in stove mill.

- No. 440.—Ordered several set screws in lower part of mill to be guarded.
- No. 441.—Required registers kept of all children under the age of 16 years, and railing around two salt grainers.
- No. 443.—Ordered statements placed on file of all children employed under the age of 16 years.
- No. 444.—Ordered five children under 14 years of age discharged, and registers kept of all under the age of 16 years; trap door for elevator openings; handrail for one stairway, the same to be screened at side and bottom.
- No. 449.—Ordered railing placed around all the salt grainers.
- No. 453.—Required statements placed on file of all children under 16 years of age.
- No. 454.—Ordered registers kept of all children with names and ages under 16 years.
- No. 456.—Automatic gates at elevator openings, and one balcony fire escape in center of the rear brick addition ordered.
- No. 459.—Ordered handrail for one flight of stairs and guard for belt of bull wheel.
- No. 460.—Handrails on two stairways ordered.
- No. 463.—Handrail on one stairway required.
- No. 471.—Ordered loose pulleys to be provided for two saws; shifters for belts of same, and guard for one rip saw.
- No. 475.—Ordered one boy under 14 years of age discharged, and statements filed for one child under 16 years of age.
- No. 482.—Required back guard for cut off saw.
- No. 488.—Guards for rip saws ordered.
- No. 489.—Required statements placed on file of all children employed under 16 years of age, and guards for rip saws.
- No. 490.—Required registers kept of all children under the age of 16 years.
- No. 491.—Ordered pulley and belt of band saw cased in.
- No. 492.—Required handrails on four flights of stairs.
- No. 493.—Ordered one boy under 14 years of age discharged, and statements placed on file with names and ages of all children employed under 16 years.
- No. 489.—Handrails around stair openings on second floor required.
- No. 499.—Ordered railings around fly wheel pit in engine room, and saw guard for rip saws.
- No. 503.—Ordered automatic trap door for elevator opening.
- No. 504.—Handrail on stairway in charcoal house ordered.

- No. 505.—Ordered statements placed on file of all children employed under the age of 16 years.
- No. 508.—Required handrails on stairways and railings around openings.
- No. 510.—Ordered statements placed on file with names and ages of all employed under 16 years, and a better system of dust arresters for emery wheels.
- No. 518.—Required registers kept of all children employed under 16 years of age.
- No. 522.—Required statements placed on file of all children employed under the age of 16 years.
- No. 523.—Ordered one belt running through floor cased in.
- No. 524.—Ordered statements placed on file of all children under 16 years of age.
- No. 526.—Required registers kept of all children under the age of 16 years.
- No. 530.—Ordered statements placed on file of all children under 16 years of age.
- No. 533.—Cog gearing, belt of bull wheel, and one set screw ordered guarded.
- No. 537.—Automatic gates for elevator openings and guard for one belt ordered.
- No. 539.—Required statements placed on file of all children employed under 16 years of age.
- No. 541.—Ordered registers kept of all children employed under the age of 16 years; guards for bolting saws; hood or guard over heading saws, and a system of dust arresters.
- No. 542.—Required statements placed on file of all employed under the age of 16 years, and belts and lower wheels of two band saws cased in.
- No. 547.—Ordered handrails on stairway, and guard for belt on ironer.
- No. 550.—Fire escape on south end of factory ordered.
- No. 553.—Required statements placed on file of all children employed under 16 years of age.
- No. 555.—New saw table for rip saw ordered.
- No. 556.—Required handrail for stairway leading to piling room.
- No. 560.—Automatic gates at openings of three elevators ordered.
- No. 561.—Railing around exposed parts of fly wheel ordered.
- No. 565.—Ordered adjustable hoods for emery wheels.
- No. 570.—Guards for exposed parts of fly wheel ordered.
- No. 572.—Automatic protection for elevator, and guards for two cog gearings required.
- No. 578.—Two fire escapes ordered, one from top story of north addition, and one from rear of main building to roof of engine room.

- No. 581.—Ordered automatic gate for elevator opening on second floor; guard for one belt, and stairs repaired.
- No. 586.—Required protection for hatchway; guards for three belts, and one set screw covered.
- No. 587.—Ordered registers kept of all children under the age of 16 years; elevator shaft enclosed; automatic gates at openings; guard for one belt, and blower system extended.
- No. 588.—Automatic gates for elevator on each floor required.
- No. 593.—Required saw guard for rip saw, and cog gearing of veneer cutter guarded.
- No. 596.—Cog gearing of bolting chests required guarded.
- No. 599.—Automatic gates for elevator openings, and guard for one belt ordered.
- No. 600.—Ordered automatic gate for elevator, and guards for two belts.
- No. 606.—Required fire escape placed on north side of factory.
- No. 612.—Handrails on one stairway ordered.
- No. 613.—Handrails for two flights of stairs ordered.
- No. 614.—Automatic gates ordered for elevator openings, and fire escape on rear of building.
- No. 615.—Automatic gates for elevator ordered repaired, and a fire escape put on the west side of factory.
- No. 618.—Ordered cog gearing on bolting chests guarded.
- No. 622.—Ordered statements placed on file with names and ages of all employed under 16 years of age.
- No. 623.—Required a separate closet for females.
- No. 629.—Ordered pulleys and belts running through second floor cased in.
- No. 630.—Railings for stair openings, and guard for one belt ordered.
- No. 631.—Required registers kept of all children employed under the age of 16 years, and automatic trap doors for elevator.
- No. 633.—Ordered blower systems put in running order.
- No. 634.—Required statements placed on file of all children employed under the age of 16 years, and automatic protection for elevator openings.
- No. 635.—Cog gearing on bolting chest required guarded.
- No. 636.—Automatic gates on elevator, and handrails on one stairway ordered.
- No. 637.—Two set screws ordered covered or removed.

- No. 642.—Automatic gates for elevator ordered.
- No. 643.—Ordered statements placed on file for two boys under 16 years of age, and handrail on stairway in warehouse.
- No. 646.—Automatic gate for elevator opening on second floor; handrails on all stairways, and railings around openings ordered.
- No. 647.—Automatic gates for elevator opening on second floor ordered.
- No. 649.—Handrail on stairway, and railing around opening required.
- No. 651.—Ordered elevator shaft enclosed; automatic gate on second floor opening, and guard for one belt.
- No. 665.—Handrails on two flights of stairs ordered.
- No. 666.—Ordered cog gearing and set screws on paper machine covered and belt of grinder cased in.
- No. 667.—Handrail on stairway; railing around opening, and guards for cog gearings of bolting machine ordered.
- No. 668.—Ordered handrail for stairway; guard for one belt; floor of second story repaired, and factory kept in clean condition.
- No. 670.—Belt of band saw ordered cased in.
- No. 672.—Ordered one door changed to swing outward; one fire escape provided for north end of building, and blow pipe extended to carving machine.
- No. 673.—Required statements placed on file of all children employed under 16 years of age.
- No. 674.—Ordered one belt cased in, and factory kept in a clean condition.
- No. 675.—Required one gate on elevator repaired, and handrails provided for two stairways.
- No. 677.—Handrails on all stairways of new building required.
- No. 679.—Ordered a number of belts in wood shop cased in.
- No. 680.—Required three belts and fly wheel in engine room guarded, and floor repaired.
- No. 683.—Ordered registers kept of all children employed under the age of 16 years.
- No. 685.—Automatic gates for two floors on one elevator ordered.
- No. 688.—Separate closet ordered for females.
- No. 691.—Ordered registers kept of all children employed under 16 years of age; main belt in engine room guarded; good saw guards for rip saws, and blower system extended to carving machine.
- No. 692.—Four belts on second floor of furniture factory ordered guarded.

- No. 694.—Required three boys under 14 years of age discharged, and statements filed with name and ages of all children employed under 16 years.
- No. 696.—Ordered elevator shaft enclosed and automatic gates for elevator.
- No. 699.—Required statements placed on file of all employed under 16 years of age.
- No. 700.—Ordered statements placed on file with name and age of all children employed under 16 years.
- No. 701.—Ordered handrail on stairway, and several belts running through floor cased in.
- No. 702.—Required registers kept of all children employed under 16 years of age; doors leading out of factory changed to swing outward, and cog gearing of winders guarded.
- No. 703.—Cog gearing of bolting chests required to be guarded.
- No. 704.—Ordered four belts cased in, and back guard for swing saws.
- No. 705.—Cog gearing in several places required guarded.
- No. 706.—Ordered elevator shaft enclosed; automatic protection provided, and belts running through floor cased in.
- No. 707.—Ordered several belts running through floor cased in; guards for rip saw, and blower system extended to sanding wheels.
- No. 708.—Ordered all belts running through floor cased in.
- No. 712.—Required all belts running through floor cased in, and factory kept in clean condition.
- No. 713.—Required cog gearing of punch guarded.
- No. 716.—Ordered handrail placed on stairway; railings around opening in engine house, and closets kept in clean condition.
- No. 717.—Ordered handrails placed on stairway; railing around opening, and saws guarded.
- No. 718.—Ordered all belts running through floor cased in.
- No. 723.—Cog gearing of bolting chests ordered guarded.
- No. 726.—Ordered shifters provided and belts of band saws cased in.

ACCIDENTS REPORTED DURING YEAR.

DISTRICT NO. 3.

[The number refers to inspection number in table.]

- No. 49.—February 28, 1895. Burt Reed, age 27, married, employed as turner by Goshen Sweeper Co., Grand Rapids, was disabled for six weeks by having his thumb cut. Wages received during time disabled.
- No. 58.—February 4, 1895. Wm. Wright, age 45, married, sawyer, employed by Berkey & Gay Furniture Co., Grand Rapids, cut off parts of 3 fingers. Was disabled six weeks; received wages during time disabled.
- No. 79.—February 28, 1895. J. Herrome, age 21, married, employed as machine hand by N. Y. Biscuit Co., Grand Rapids, was injured on the hand. Was disabled 10 days and received wages while disabled.
- No. 110.—February 1, 1895.—Lottie Ledridwicz, age 18, single, employed as mangler by Gardiner & Baxter, Grand Rapids, hand injured by being caught in mangle. Was disabled 3 weeks, and received wages for time disabled.
- No. 110.—April 10, 1895. Louise Schultz, age 21, single, employed as collar and cuff ironer by Gardiner & Baxter, had hand and arm drawn in and crushed as she was putting a new cloth on the ironer. Was disabled 6 weeks and received wages during time disabled.
- No. 128.—February 18, 1895. Henry Sommerdyke, aged 17, single, employed at general work by Grand Rapids Paper Box Co., was disabled for four weeks by getting bruised on the side. Wages received during time disabled.
- No. 150.—February 13, 1895. Peter Baker, aged 25, single, employed as sawyer by Grand Rapids Refrigerator Co., had thumb and two fingers injured on rip saw. He was disabled 14 days. Doctor's bill paid by company.
- No. 150.—February 23, 1895. E. C. Waters, age 20, single, employed as a shaper by Grand Rapids Refrigerator Co., had forearm and hand badly cut on shaper. Was disabled for two weeks; wages paid during time disabled.
- No. 150.—May 6, 1895. B. Granster, aged 20, single, employed by Grand Rapids Refrigerator Company, had three fingers cut from right hand while working at tenon saw. Not able to work at time of inspector's report. Wages were paid during time disabled, and doctor's bill paid by company.

- No. 150.—May 6, 1895. Frank Thompson, age 30, married, employed as machine hand by Grand Rapids Refrigerator Co., had three fingers cut on rip saw through carelessness. Physician's bill paid by firm.
- No. 150.—October 1, 1895. Paul DeFrench, age 17, employed on running saw by Grand Rapids Refrigerator Co., was disabled for 10 days by having index finger cut off. Received wages during time disabled.
- No. 211.—January 16, 1895. A. Blok, aged 35, married, employed as machine hand at the Grand Rapids & Indiana Railroad Car Shops, lost thumb on right hand. Was disabled four weeks. He received one-half wages and doctor's bill.
- No. 215.—August 28, 1895. Gerrit Kolkman, aged 30, single, employed at tending planer by S. P. Swartz, Muskegon, cut off his thumb through carelessness. Was disabled five weeks; received no wages during time disabled.
- No. 224.—June 18, 1895. Jacob Boersma, aged 28, married, employed by Sligh Furniture Co., Grand Rapids, was badly scalded by an explosion of a mud drum. Was disabled four weeks and received wages during time disabled.
- No. 224.—October 15, 1895. Ed. Haynes, aged 40, married, shaper hand in the employ of Sligh Furniture Co., Grand Rapids, lost two fingers on left hand at second joint. Was disabled four weeks and received wages in full during time disabled.
- No. 228.—June 10, 1895. Christine Johnson, age 19, single, employed as finisher by the Grand Rapids Felt Boot Co., had thumb injured. Was disabled one month, doctor's bill paid by company.
- No. 229.—February 12, 1895. S. Symonds, age 45, married, employed as buzz planer by McCord & Bradfield Furniture Co., Grand Rapids, had the ends of two fingers cut off. One-half wages and doctor's bill paid by company.
- No. 229.—April 30, 1895. John Tomart, age 30, married, employed by McCord & Bradfield Furniture Co., Grand Rapids, lost three fingers in machinery. Doctor's bill paid by firm.
- No. 229.—March 4, 1895. John Koman, age 22, single, employed as sawyer by McCord & Bradfield Furniture Co., Grand Rapids, left guard off saw and a block flew back and struck him in the eye and cut it so badly it had to be taken out. Was disabled three weeks. All expenses paid by firm.
- No. 248.—March 26, 1895. J. Richards, age 26, married, employed as packer by Oriol Cabinet Co., Grand Rapids, lost a finger and part of thumb. Was disabled 17 weeks and did not receive wages during time disabled.
- No. 257.—September 1, 1895. George Ross, age 25, single, employed on cut off saw for Dale & Brethour, injured on two fingers through carelessness. Was disabled three weeks, received no wages during time disabled.

- No. 275.—July 2, 1895. Will Adams, age 23, single, employed as machinist by Buss Machine Co., Holland, was disabled for 14 days by the loss of part of a finger on left hand. Received no wages during time disabled.
- No. 347.—November 13, 1895. Dolly Crowley, aged 21, single, press hand, employed by News Publishing Co., Manistee, caught her sleeve in cogs of press and cut her arm. Not yet recovered, but is receiving wages.
- No. 359.—July 8, 1895.—Thomas O. Grady, age 36, married, employed as sawyer for J. C. Pomeroy, Manistee, lost part of finger on a saw. Was disabled two weeks, and did not receive wages during time disabled.
- No. 366.—August 14, 1895. Alfred Flick, age 30, married, edgerman, employed by Louis Sands, Manistee, was killed by a board for the edger flying back and striking him near the heart. Burial expenses paid by the superintendent, John Moe.
- No. 367.—November 1, 1895. William Shisbski, age 38, married, salt wheeler in the employ of Louis Sands, Manistee, was killed by falling from the tramway, twenty feet, and striking his head. It was his own carelessness. Burial expenses paid by some society.
- No. 373.—October 8, 1895. Steven Troll, age 28, married, employed at sawing edgings for State Lumber Co., Manistee, stepped on the table to hang up a lamp and got one foot too near the saw and cut all the toes off. He received some financial aid by subscription.
- No. 373.—May —, 1895. Aug. Wellman, age 36, married, employed as bolt splitter by State Lumber Co., Manistee, cut his hand open between thumb and finger with an ax. The accident was the result of carelessness. He was disabled for 7 weeks and received no wages during time disabled.
- No. 378.—July 22, 1895. Joseph Montagna, age 19, employed as laborer by John O. Nessen, Manistee, was killed in trying to get a block out of the saw. He lifted up the live roller and it flew back and hit him. The accident was caused by carelessness.
- No. 383.—April 30, 1895.—J. C. Reynolds, age 63, married, employed at rip sawing by Manistee Manufacturing Co., lost a thumb. Did not loose any time, had his hand dressed and remained at his work.
- No. 388.—July 10, 1895. Joseph Witt, age 50, married, employed as salt sifter by Eureka Lumber Co., Manistee, while putting plug in spout his foot slipped and was badly scalded. Received wages while disabled.
- No. 390.—June 13, 1895. John Blott, age 16, single, a lath trimmer employed by Manistee Lumber Co., Manistee, was severely cut on wrist. He received wages during time disabled.
- No. 394.—April 26, 1895. Anton Hutchkro, age 40, married, was working at a heap of sawdust; he undermined it and it fell on him and smothered him. He was employed by R. G. Peters Salt and Lumber Company, East Lake.

- No. 394.—May 21, 1895. Elzor Doe, age 25, single, employed by R. G. Peters Salt and Lumber Co., East Lake, lost a finger and part of another on saw. He was disabled 6 weeks, and received no wages during time disabled.
- No. 394.—June 7, 1895. Ross Preston, age 17, single, employed as laborer by R. G. Peters Salt and Lumber Co., East Lake, while picking up a shingle block had leg broken. Received no wages during time disabled.
- No. 394.—November 29, 1895. A. A. Wabasha, age 63, married, employed as superintendent by R. G. Peters Salt and Lumber Co., East Lake, was badly cut on arm near elbow while adjusting a chain near a saw that was in motion. Not yet recovered.
- No. 396.—November 28, 1895. Pearl R. Chamberlain, married, employed as head sawyer by Canfield Salt and Lumber Co., Manistee, was struck by a log that was rolled back on carriage while in motion, and died from loss of blood.
- No. 408.—June 27, 1895. A. Reichert, age 27, married, log roller, employed by Horning & Hart, Kenosha, had a foot crushed while rolling a log. Was disabled one month and received wages during time disabled.
- No. 417.—May 13, 1895. Math Brust, age 22, single, employed as rip sawyer by J. H. & J. A. Haak, Haakville, back of hand cut on saw. Was disabled one month and received wages during time disabled.
- No. 419.—January 2, 1895. Sidney Conklin, age 16, single, employed about saw for J. S. Stearns, Stearns, lost two fingers and thumb on saw. Was disabled eight weeks and did not receive wages while disabled.
- No. 424.—July 16, 1895. George McCun, age 28, married, rip sawyer in the employ of Curtis Enameling Co., Ludington, lost a portion of two fingers while adjusting a saw when in motion. The accident was caused by carelessness. He received wages during time disabled.
- No. 435.—July 25, 1895. William Allard, age 16, single, employed about saw for Pere Marquette Lumber Co., Ludington, lost one finger. Received wages during time disabled.
- No. 446.—July 30, 1895. Erick Soelender, age 20, single, laborer employed for Industrial Iron Works, Ludington, was injured in eye by piece of flying iron. Was disabled three weeks and received no wages during time disabled.
- No. 449.—November 18, 1895. Frank Roskopf, age 24, married, employed as night man in block for Percy Salt Works No. 3, Ludington, had leg scalded and two ribs broken. Accident was caused by not having railing around salt grainer.
- No. 452.—June 7, 1895. E. Dodge, age 25, single, a rip sawyer in the employ of Cadillac Handle Co., Cadillac, was injured by a board which flew back from the saw, bruising the arm. Was disabled one week; received no wages during time disabled.

- No. 454.—July —, 1895. Frank Ward, age 17, single, employed as cooper by Butters & Peters Lumber and Salt Co., Buttersville, lost one finger on machinery that he had been told to keep away from. He did not receive wages for time disabled, which was four weeks.
- No. 455.—July 26, 1895. Ed. Wrenge, age 35, married, machinist, employed in Mason & Oceana railroad shops, Buttersville, had one finger badly bruised while adjusting a machine; it was through carelessness. Was disabled two weeks.
- No. 459.—August 7, 1895. William Campbell, age 22, single, a knot sawyer in the employ of Sands & Maxwell, Pentwater, had thumb badly cut. Was not able to work for two weeks, and received no wages during time disabled.
- No. 478.—June 1, 1895. Jacob Mousher, age 50, married, laborer, employed in Chicago & West Michigan car shops, Muskegon, overcome by heat fell from the stairs and broke his arm and bruised himself badly. Received no wages for time disabled.
- No. 478.—June 6, 1895. Charles Johnson, age 38, married, a sawyer in the employ of Frank Skoien, had a finger crushed so amputation was necessary. Doctor's bill paid by firm.
- No. 482.—May 25, 1895. A. Adams, age 26, single, a cart driver in the employ of Charles Fox & Co., Thompsonville, had leg broken by a plank in tramway breaking. He fell through and the cart fell on him. Received wages during time disabled.
- No. 493.—August 27, 1895. Oliver Roblard, age 22, single, was cut on two fingers and was disabled for 10 days. He was a machine hand in the employ of Kelly Bros. Manufacturing Co., Muskegon Heights. Did not receive wages during time disabled.
- No. 494.—August 7, 1895. R. C. Wood, age 21, single, employed as machinist for Shaw Electric Crane Co., Muskegon Heights, was disabled ten days by forefinger being cut off. Received no wages during time disabled.
- No. 499.—March 22, 1895.—John Thompson, age 45, married, was killed by a boiler explosion. He was a watchman in the employ of Gray Bros. Manufacturing Co., Muskegon Heights. Burial expenses paid by family.
- No. 502.—September 12, 1895. Alex Van Zanter, age 35, married, foreman for W. F. Wiselogel, Muskegon, had arm caught in gear of planer through carelessness. Receives wages; not at work yet.
- No. 519.—May —, 1895. George Eaton, age 28, single, log roller in the employ of Thayer Lumber Co., Muskegon, had leg broken. Was disabled six weeks and received wages during time disabled.
- No. 534.—October 15, 1895. John Carlson, age 40, married, bolter in employ of McGraft Lumber Co., had arm broken through carelessness. Not yet recovered and does not receive wages.

- No. 537.—November 19, 1895. William Murphy, age 17, single, in the employ of J. Loecher Tanning Co., Muskegon, had part of finger pinched off through carelessness. Not yet recovered and receives wages.
- No. 551.—October 7, 1895. William C. McFarland, age 45, married, engineer in the employ of C. F. Nason, Grand Rapids, was scalded by an explosion of the mud drum and died in about one week. Burial expenses paid by firm.
- No. 553.—February 28, 1895. John De Young, age 16, single, employed by Gunn Folding Bed Co., Grand Rapids, carelessly put his hand on sander and it was carried around and crushed. Was disabled five weeks and received wages during time disabled.
- No. 579.—January 2, 1895. J. Langquist, age 25, single, employed as morticer by Widdicomb Furniture Co., Grand Rapids, badly cut on back of hand severing cord. He was disabled four months and received wages while disabled.
- No. 579.—May 1, 1895. Frank Dubendorf, age 45, single, had two fingers cut while employed on excelsior machine for Widdicomb Furniture Co., Grand Rapids. Was disabled four weeks and received wages during time disabled.
- No. 604.—September 19, 1895. Joseph Gothies, age 50, married, employed at buzz planer for Grand Rapids Hand Screw Co., Grand Rapids, was disabled ten days by having three fingers severely cut on knife. Wages received while disabled.
- No. 617.—August 31, 1895. Wadie Luszinski, age 16, employed at rip sawing by Dosch Furniture Co., Grand Rapids, had one finger cut off on saw. Was disabled four weeks and received wages during time disabled.
- No. 622.—February 1895. Fred Bangson, age 40, single, a machine hand in the employ of Grand Rapids Clock and Mantel Co., Grand Rapids, cut off part of thumb. Was disabled three weeks and received no wages during time disabled.
- No. 635.—October 5, 1895. Larson Rosseth, age 20, single, in brushing dust from some cogs the brush caught and his hand was drawn in, cutting off one finger. He was employed as oiler and sweeper for Model Mills, Grand Rapids. He was disabled two weeks and received wages during time disabled.
- No. 636.—March 23, 1895. Edw. A. Van Beem, age 35, married, employed as bench hand by Ocker & Ford Manufacturing Co., Grand Rapids, was disabled seven weeks by having parts of three fingers cut off. Did not receive wages while disabled.
- No. 649.—June 30, 1895. Theodore Castor, age 35, married, in the employ of Wallen Leather Co., Grand Rapids, bone of one leg splintered. Doctor's bill was paid, and he received one-half wages while disabled.

- No. 657.—January, 1895. Jacob Haverman, age 30, married, while trying to catch board was caught in saw, and had thumb cut off at base of nail. He was employed for O. & W. Thum Co., Grand Rapids. He received one-half wages and doctor's bill while disabled.
- No. 657.—January 15, 1895. Bodwin Newhouse, age 15, employed at box machine for O. & W. Thum Co., Grand Rapids, cut off the end of a finger in machine. Was disabled one week and received wages for time disabled.
- No. 657.—May 15, 1895. Adam Haeahn, age 17, in the employ of O. & W. Thum Co., Grand Rapids, through carelessness had the tip of finger cut off in box machine. Was disabled three weeks. Doctor's bill paid and one-half wages received during time disabled.
- No. 657.—May 25, 1895. John Zandt, age 17, employed at cutting cardboard for O. & W. Thum Co., Grand Rapids, hand caught in press and badly crushed. Was disabled five months. He received one-half wages and doctor's bill while disabled.
- No. 657.—June 4, 1895. William Bowen, age 17, employed at stamping paper boxes for O. & W. Thum Co., Grand Rapids, in cleaning machinery used fingers instead of knife as ordered, and had the ends of three fingers cut off. Was disabled two weeks and received wages during time disabled.
- No. 657.—June 5, 1895. Charles Roth, age 16, in the employ of O. & W. Thum Co., Grand Rapids, had end of finger cut off in box machine. He received one-half wages and doctor's bill during time disabled.
- No. 657.—September 23, 1895. Sophia Erickson, age 17, single, employed at sorting papers for O. & W. Thum Co., Grand Rapids, in trying to adjust a roll of paper while the rolls were in motion her hand was drawn in and slightly crushed. She received one-half wages and doctor's bill while disabled.
- No. 657.—October 12, 1895. Henry Ball, age 16, had the tip of finger cut off on box machine through carelessness, while in the employ of O. & W. Thum Co., Grand Rapids. He received one-half wages and doctor's bill during time disabled.
- No. 665.—April, 1895. Charles Ball, age 27, married, employed as teamster by Childs-
dale Paper Mill, had foot badly scalded by stepping in hot liquid. Was disabled six weeks. Received wages during time disabled.
- No. 665.—July, 1895. Jacob Runner, age 18, a bleacher in the employ of Childs-
dale Paper Mills, Childs-
dale, was hit by straw carrier and had leg broken. Was disabled five weeks. Did not receive wages during time disabled.
- No. 675.—May —, 1895. Claud Allen, age 15, single, had his hand caught between the rollers and portions of three fingers cut off. He was employed as tender for Ovid Carriage Co., Ovid. Was disabled two months and received wages during time disabled.

- No. 677.—February 2, 1895. E. Branch, age 20, single, employed at sanding for St. Johns Manufacturing Co., had hand scraped. Was disabled 14 days and received \$6.12 from accident association.
- No. 677.—February 7, 1895. R. Hildebrand, age 30, married, common laborer in the employ of St. Johns Manufacturing Co., had leg injured. Was disabled 14 days; received \$5.00 from accident association.
- No. 677.—April 2, 1895. B. F. Guy, age 50, married, common laborer in the employ of St. Johns Manufacturing Co., fell and bruised foot. Was disabled 18 days; received \$9.13 from accident association.
- No. 677.—April 30, 1895. B. F. Phillips, age 35, married, jointer in the employ of St. Johns Manufacturing Co., lost two fingers. Was disabled 60 days; received \$50.00 from accident association.
- No. 677.—April 16, 1895. Henry Bristol, age 33, single, employed at planer for St. Johns Manufacturing Co., lost part of thumb. Was disabled 33 days; received \$10.96 from accident association.
- No. 677.—May 1, 1895. Andrew Smith, age 55, married, employed in the lumber yard of St. Johns Manufacturing Co., had a rupture caused by heavy lifting. Was disabled 60 days; received \$30.00 from accident association.
- No. 677.—July 22, 1895. Waldo Vance, age 40, married, drayman in the employ of St. Johns Manufacturing Co., had foot crushed by falling weight. Was disabled 14 days; received \$6.96 from accident association.
- No. 685.—August 28, 1895. Frank Fuller, age 38, married, a shaper in the employ of Capitol Wagon Works, Ionia, lacerated finger on right hand. Was disabled one month and received wages during time disabled.
- No. 691.—August 30, 1895. Charles Schuly, age 18, single, employed at grooving for Ionia Furniture Co., Ionia, cut off parts of three fingers. Was disabled six weeks and received no wages during time disabled.

FOURTH DISTRICT.

SUMMARY OF WORK IN FOURTH INSPECTION DISTRICT.

OFFICE OF DEPUTY INSPECTOR, }
Saginaw, December 26, 1895. }

HON. CHARLES H. MORSE,

Commissioner of Labor, Lansing, Mich.:

DEAR SIR—In obedience to instructions contained in circular issued by you November 30, 1895, I most respectfully submit the following report of my work as factory inspector since I commenced the work, September 19th, 1893, up to November 30th, 1895.

Table showing factory inspection in fourth district since September 1, 1893.

Kinds of changes ordered.	1893.		1894.		1895.	
	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.	No. of changes ordered.	No. of orders complied with.
Fire escapes.....	15	8	13	10	9	9
Automatic guards for elevators.....	11	7	23	11	18	14
Separate closets where both sexes are employed.....	4	2	9	9	9	6
Doors changed to swing outward.....	6	2	10	9	6	6
Belts Guarded.....	23	15	15	13	23	14
Fly wheels and pulleys guarded.....	8	4	17	13	22	14
Handrails on stairways.....	87	81	69	49	75	55
Projecting set screws and keys guarded.....	10	3	7	5	22	13
Exhaust fans provided to remove dust.....	3	1	11	4	13	6
Children under fourteen years discharged.....	42	42	14	14	20	20
Miscellaneous orders.....	25	14	96	47	80	45
Total changes and compliances.....	234	124	233	184	297	201

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Whole number of factories inspected in 1893.....	239
Whole number of factories revisited in 1893.....	79
Whole number of factories inspected in 1894	421
Whole number of factories revisited in 1894.....	122
Whole number of factories inspected in 1895	418
Whole number of factories revisited in 1895	191
Whole number of inspections since September 1, 1893.....	1,078
Whole number of factories revisited since September 1, 1893..	372

The compliances reported are only what have actually been provided, and I have good reason to believe that there have been quite a number of compliances of which I can make no definite report, owing to the fact that I have been unable to go over all my territory twice in one season, and more could probably be reported were it not a fact that many of our factories have been obliged to suspend operations in the last two years.

My district you are aware has been changed every year so that some places I have only visited once, but these have been followed up by other inspectors from other districts. The miscellaneous orders referred to include orders to keep statements on file, guards for saws, stairs screened at sides and bottom, guards for counter and line shafts, shifters for throwing belts off and on pulleys, loose pulleys, cleaning closets, sanitary conditions, guards for well holes and hoisting shafts, open vats, pans, etc.

Respectfully yours,

O. O. KRAPP,

Deputy Inspector.

Inspection book No. 1.

TABLE No. 4.—

No. given factory for 1908.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
1	Apr. 16	Saginaw	F. G. Palmerton Woodenware Co.	Tube and pails	run.	full
2	" 18	"	Saginaw Basket Co.	Baskets	"	"
3	" 17	"	Saginaw Box Co.	Boxes, clothes reels, etc.	"	"
4	" 18	"	Stanglein Mfg Co.	Furniture	"	"
5	" 18	"	John G. Schemm	Beer, porter, etc.	"	"
6	" 18	"	McLeod Bros.	Cigar boxes	"	"
7	" 18	"	Magnetic Spr'g & Cold Storage Co.	Carbonated beverages	"	"
8	" 18	"	Eagle Brewery	Beer	"	"
9	" 19	"	John Deibel	Cigars	"	"
10	" 19	"	Wolverine Cigar Co.	"	"	"
11	" 19	"	City Milling Co.	Flour and feed	"	"
12	" 23	"	Crumme & Bolton Mfg Co.	Wooden dishes	"	"
13	" 23	"	Farrell, Prame & Osier	Seed cleaners	"	"
14	" 23	"	Keystone Shade Roller Co.	Shade rollers	"	"
15	" 24	"	J. F. Barrows	Banjos, guitars, etc.	"	"
16	" 24	"	F. Pohlman & Co.	Cigars	"	"
17	" 26	"	Saginaw Elect. Light & Power Co.	Electricity	"	"
18	" 26	"	C. F. M. Deibel	Cigars	"	"
19	" 26	"	Alpha Mfg Co.	Ladies wrappers	"	"
20	" 26	"	D. Hardin & Co.	Sash, doors, etc.	"	"
21	" 26	"	American Potato Flour Co.	Potato flour, etc.	idle	"
22	" 29	"	Wm. Williamson	Machinery	run.	full
23	" 29	"	Wall & Webber	Lumber, lath and salt	"	"
24	" 29	"	Michigan Lumber Co.	Lumber	"	"
25	" 29	"	Aome Planing Mill & Box Factory	Dressed lumber & boxes	"	"
26	" 30	"	Saginaw Steam Laundry	Laundry work	"	"
27	" 30	"	National Brewing Co.	Beer	"	"
28	" 30	"	F. H. Mertz	Cigars	"	"
29	" 30	"	F. Baarsheer	"	"	"
30	" 30	"	R. Gottechaik	"	"	"
31	May 1	"	Bliss & Van Aukon	Lumber and salt	"	"
32	" 1	"	A. W. Wright Lumber Co.	Dressed lumber	"	"
33	" 1	"	Henry Passolt	Soap	"	"
34	" 1	"	Brand & Hardin	Flour and feed	"	"
35	" 1	"	Brand & Hardin	Shingles and salt	"	"
36	" 3	"	Jones & Jones	Printing & book binding	"	part
37	" 3	"	Wm. Barie	Bias velveteen bindings	"	full
38	" 3	"	Seeman & Peters	Printed matter	"	part
39	" 3	"	Saginaw Evening News	Newspaper	"	full
40	" 4	"	Saginaw Printing & Publishing Co	Printed matter	"	"
41	" 4	"	Wm. Callam & Son	Flour and feed	"	"
42	" 4	"	Robertson Valley Laundry	Laundry work	"	"
43	" 4	"	Pomeroy Cracker Co.	Crackers	"	"
44	" 9	"	Koehler Bros.	Machinery, etc.	"	"
45	" 10	"	Witter's Laundry	Laundry work	"	"
46	" 10	"	Crystal Laundry	"	"	"
47	" 10	"	Joseph Marks	Cigars	"	"
48	" 10	"	J. M. Roberts	"	"	"
49	" 10	"	Reitter & Bastian	Newspaper & job print'g.	"	"
50	" 18	"	Thomas Jackson & Co.	Dressed lumber	"	"

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age?	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable opening?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
1	60	60	250	250	---	---	5	yes	10	\$6,500	60	no	no	yes	yes	yes	no	---	yes	no	no	yes	---
2	60	60	80	80	---	---	4	yes	10	2,100	60	no	yes	yes	yes	---	---	---	---	---	---	---	---
3	60	60	65	53	12	---	---	---	10	1,750	60	yes	yes	yes	yes	---	---	---	---	---	---	---	---
4	60	60	40	40	---	---	4	yes	10	1,250	45	---	---	---	---	---	---	---	---	---	---	---	---
5	60	60	15	15	---	---	---	---	---	750	60	---	---	---	---	---	---	---	---	---	---	---	---
6	60	60	15	3	2	---	---	---	10	280	60	---	---	---	---	---	---	---	no	yes	---	---	yes
7	60	60	8	6	---	---	---	---	10	280	60	yes	---	yes	yes	---	---	---	yes	---	---	---	---
8	60	60	7	7	---	---	---	---	10	320	60	---	---	---	---	---	---	---	---	---	---	---	---
9	48	48	10	4	1	---	---	---	8	225	60	---	---	---	---	---	---	---	---	---	---	---	---
10	48	48	23	19	4	---	1	yes	8	1,050	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
11	60	60	8	8	---	---	---	---	10	320	60	---	---	---	---	---	---	---	yes	yes	yes	---	---
12	60	60	130	82	48	---	9	yes	10	4,200	60	yes	yes	---	---	---	---	---	---	---	---	yes	
13	60	60	10	4	---	---	---	---	10	210	60	---	---	---	---	---	---	---	---	---	---	---	---
14	60	60	40	30	10	---	---	---	10	700	45	yes	yes	---	---	---	---	---	---	---	---	yes	
15	60	60	8	5	---	---	---	---	10	270	60	---	---	---	---	---	---	---	---	---	no	---	---
16	48	48	10	9	1	---	---	---	8	360	60	---	---	---	---	---	---	---	---	---	---	---	yes
17	72	72	8	8	---	---	---	---	---	450	60	---	---	---	---	---	---	---	yes	yes	---	---	---
18	48	48	4	3	---	---	---	---	8	112	60	---	---	yes	yes	---	---	---	yes	yes	---	---	---
19	60	60	42	37	---	---	---	---	10	720	60	yes	yes	---	---	---	---	---	yes	yes	---	---	yes
20	60	60	32	20	---	---	---	---	10	780	60	---	---	---	---	---	---	---	no	no	---	---	---
21	60	---	35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	60	60	15	5	---	---	---	---	10	220	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
23	60	60	50	50	---	---	---	---	10	1,000	60	---	---	---	---	---	---	---	yes	---	---	---	---
24	60	60	45	45	---	---	---	---	10	1,600	60	---	---	---	---	---	---	---	---	---	---	---	---
25	60	60	50	21	---	---	---	---	10	800	60	yes	yes	---	---	---	---	---	---	---	yes	---	---
26	60	60	15	6	9	---	---	---	10	400	60	---	---	---	---	---	---	---	---	---	---	---	yes
27	60	60	8	8	---	---	---	---	10	375	60	---	---	---	---	---	---	---	---	---	---	---	---
28	48	48	6	4	---	---	---	---	8	165	60	---	---	---	---	---	---	---	---	---	---	---	---
29	48	48	5	3	---	---	---	---	8	110	60	---	---	---	---	---	---	---	---	---	---	---	---
30	48	48	6	4	---	---	---	---	8	165	60	---	---	yes	yes	---	---	---	---	---	---	---	---
31	60	60	240	170	---	---	---	---	10	10,000	60	---	---	---	---	---	---	---	yes	yes	yes	---	---
32	60	60	105	90	---	---	2	yes	10	2,650	60	---	---	---	---	---	---	---	---	yes	yes	---	---
33	60	60	9	9	---	---	---	---	10	350	60	yes	yes	---	---	---	---	---	---	---	---	---	---
34	60	60	16	16	---	---	1	yes	10	825	60	---	---	---	---	---	---	---	---	---	yes	---	---
35	60	60	10	10	---	---	---	---	10	480	60	---	---	---	---	---	---	---	---	---	---	---	---
36	59	54	20	11	1	---	---	---	10	450	60	yes	yes	---	---	---	---	yes	---	---	---	yes	---
37	60	60	50	7	48	---	---	---	10	650	60	---	---	---	---	---	---	---	---	---	---	---	---
38	60	54	30	24	6	---	---	---	10	1,150	60	yes	yes	---	---	---	---	yes	---	---	---	---	---
39	48	48	23	22	1	---	---	---	8	1,350	60	---	---	---	---	---	---	---	---	---	---	---	---
40	60	60	20	14	2	---	---	---	10	550	60	---	---	---	---	---	---	---	---	---	---	---	---
41	60	60	9	9	---	---	---	---	10	465	60	---	---	---	---	---	---	---	---	---	---	---	---
42	60	60	27	5	22	---	---	---	10	875	60	---	---	---	---	---	---	---	---	---	---	---	yes
43	60	60	15	10	---	---	---	---	10	400	60	yes	yes	yes	yes	---	---	---	---	---	---	yes	---
44	60	60	15	6	1	---	---	---	10	275	60	---	---	---	---	---	---	---	---	---	---	---	yes
45	60	60	26	7	19	---	2	yes	10	700	60	yes	yes	yes	yes	---	yes	---	---	---	---	---	---
46	60	60	10	5	5	---	---	---	10	300	60	---	---	---	---	---	---	---	---	---	---	---	---
47	48	48	12	5	---	---	1	yes	8	215	60	---	---	---	---	---	---	---	---	---	---	---	yes
48	48	48	15	11	1	---	1	---	8	450	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
49	60	60	12	8	1	---	---	---	10	240	60	---	---	---	---	---	---	yes	no	---	---	---	---
50	60	60	150	32	1	---	---	---	10	980	60	yes	yes	---	---	---	---	---	yes	yes	yes	---	---

Inspection book No. 2.

TABLE No. 4.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
51	May 20	Saginaw	Hammeter Cigar Co.	Cigars	run.	full
52	" 21	"	C. K. Eddy & Son	Lumber, lath and salt	"	"
53	" 21	"	Saginaw Milling Co.	Flour, feed, etc.	"	"
54	" 22	"	Chas. Lee Saw Mill	Lumber	idle	"
55	" 23	"	Chas. Lee Planing Co.	Sash, doors, etc.	run.	full
56	" 23	"	Randall & Boyd	Dressed lumber	"	"
57	" 23	"	Allington & Curtiss	Dust collectors, etc.	"	"
58	" 23	"	Saginaw Furniture Co.	Furniture	"	"
59	" 24	"	Saginaw Evening Leader	Newspaper	"	"
60	" 24	"	Saginaw Printing Co.	Printed matter	"	"
61	" 25	"	Beelman Manufacturing Co.	Furniture	"	"
62	" 25	"	Luffin Rule Co.	Rules	"	"
63	" 25	Crow Island	S. M. Tyler & Son	Shingles and salt	idle	"
64	" 25	"	Saginaw Salt and Lumber Co.	Lumber, lath and salt	run.	full
65	" 25	Saginaw	Frank H. Erd Piano Factory	Pianos and harps	"	"
66	" 28	"	Morley Bros.	Harnesses and collars	"	"
67	" 28	"	E. Zimmer	Furniture	"	"
68	" 29	"	Michigan Saw Co.	Saws	"	"
69	" 29	"	Metallio Curtain Pull Co.	Brass goods	"	"
70	" 29	"	Bachet & Grohmann	Furniture	"	"
71	" 29	"	Louis Kreis	Machinery and repairs	"	"
72	" 29	"	Morley Bros. Tool Factory	Lumbering tools, etc.	"	"
73	" 29	"	Gebhart & Esterbrook	Lumber, lath and salt	idle	"
74	" 1	"	Briggs & Cooper	Lumber and salt	run.	full
75	" 1	"	A. D. Camp	Staves	"	"
76	" 3	"	Morley Bros.	Lumber tools	"	"
77	" 3	"	Morley Bros.	Ax and pick handles	idle	"
78	" 3	"	Saginaw Union St. R'y Car Shops	Cars	run.	full
79	" 3	"	E. R. Ayres Salt and Lumber Co.	Dressed lumber and salt	idle	"
80	" 4	"	A. W. Wright Lumber Co.	Lumber, lath and salt	run.	full
81	" 4	"	Saginaw Courier Herald	Printed matter	"	"
82	" 4	"	Saginaw Globe	"	"	"
83	" 4	"	Laing & Moiles	"	"	"
84	" 5	"	J. T. Wylie & Co.	Hoops	"	"
85	" 5	"	E. A. Gyde	Staves	"	"
86	" 5	"	Thomas Tindle	Heading	"	"
87	" 5	"	Stone Bros.	Shingles and salt	"	"
88	" 5	"	F. W. Carlisle & Co.	Harness leather	"	"
89	" 6	"	Britton & Barber Hoop & Oar Co.	Hoops and oars	"	"
90	" 6	"	Desham, Sweaf & Co.	Staves and heading	"	"
91	" 6	"	Chas. Desham	Barrels	"	"
92	" 6	"	U. S. Graphite Co.	Graphite, paint, etc.	"	"
93	" 7	Melbourne	Whitney & Batchelor	Lumber, lath and salt	idle	"
94	" 7	Zilwaukee	New York Works	"	"	"
95	" 7	"	Central Lumber Co.	"	run.	full
96	" 7	"	C. L. Grant & Co.	Lumber and salt	idle	"
97	" 8	Carrolton	A. T. Bliss	"	run.	full
98	" 8	"	D. H. Abel	Dressed lumber	"	"
99	" 8	"	E. O. & S. L. Eastman & Co.	Dressed lumber, etc.	"	"
100	" 13	Saginaw	Felge Desk Co.	Office desks	"	"

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District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week, at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 15 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
51	48	48	60	34	14				8	\$2,750	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
52	60	60	110	110					10	4,350	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
53	60	60	32	32					10	1,450	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
54	60	60	23	23					9	640	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
55	54	54	20	20					10	1,200	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
56	60	60	50	45					10	1,000	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
57	60	60	90	30					10	2,100	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
58	60	60	50	75				yes	10	470	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
59	30	60	9	8	1				10	270	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
60	60	60	5	4	1				10	900	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
61	60	60	65	30					10	1,430	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
62	60	60	52	36	16				10	5,800	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
63	60	60	30	30					10	800	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
64	60	60	180	180					10	1,350	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
65	60	60	100	25				yes	10	130	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
66	60	60	40	38	2				10	785	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
67	60	60	5	8					10	200	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
68	60	60	18	18					10	315	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
69	60	60	30	1	4				10	180	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
70	60	60	11	7					10	200	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
71	60	60	8	4					10	625	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
72	60	60	8	4					10	400	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
73	60	60	95						10	1,450	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
74	60	60	40	40					10	240	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
75	60	60	18	18				yes	10	1,200	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
76	60	60	15	7					10	5,200	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
77	60	60	6						10	1,850	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
78	60	60	18	18					10	625	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
79	60	60	50						10	400	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
80	60	60	142	142				yes	10	2,700	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
81	60	60	42	40	2				10	1,100	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
82	60	60	14	13	1				10	1,800	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
83	60	60	10	10					10	525	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
84	60	60	70	70					10	2,000	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
85	60	60	40	40				yes	10	1,800	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
86	60	60	60	50					10	485	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
87	60	60	14	14					10	200	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
88	60	60	60	50					10	285	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
89	60	60	60	46					10	5,100	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
90	60	60	35	12					10	2,800	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
91	60	60	15	5					10	780	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
92	60	60	12	8					10	1,350	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
93	60	60	150						10	1,600	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
94	60	60	120						10	2,800	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
95	60	60	120	120					10	780	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
96	60	60	40						10	1,350	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
97	60	60	84	84					10	1,600	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
98	60	60	20	20					10		60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
99	60	60	40	40					10		60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
100	60	60	80	55				yes	10		60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes

* 144 hours; running night and day.
† 60 hours; females 54 hours.

‡ Permit given by inspector.

Inspection book No. 3.

TABLE No. 4.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
101	May 27	Bay City.....	National Cycle Mfg Co.....	Bicycles.....	run.	full
102	" 27	"	Michigan Pipe Co.....	Wooden pipe and salt.....	" ..	" ..
103	" 31	"	Romer, Lovell & Co.....	Millinery and dressmak'g.....	" ..	" ..
104	" 31	"	Lee Bros.....	Furniture.....	" ..	" ..
105	June 14	"	Valley Scrap Iron Co.....	Rags, metals, etc.....	" ..	part
106	" 14	"	H. Goldman.....	" " ".....	" ..	full
107	July 3	"	Michigan Box Co.....	Boxes.....	" ..	" ..
108	" 3	"	Webster Vise Works.....	Vises and siphons.....	" ..	" ..
109	" 3	"	Miller Bros. Planing Mill.....	Dressed lumber.....	" ..	" ..
110	" 5	"	G. H. Merrill & Co.....	Dressed lumber, sash, etc.....	" ..	" ..
111	" 5	"	Thomas Munn.....	Machinery.....	" ..	" ..
112	" 5	"	James McKean.....	Wire reels or spools.....	" ..	" ..
113	" 5	"	Andrews & Albee Box Co.....	Boxes.....	" ..	" ..
114	" 5	"	Bay Mfg Co.....	Boxes and dressed lumber.....	" ..	" ..
115	" 5	"	Edwin F. Rouse.....	Cisterns, clothes reels, etc.....	" ..	" ..
116	" 8	"	Bay City Cigar Co.....	Cigars.....	" ..	" ..
117	" 8	"	Schweikle Bros.....	" ..	" ..	" ..
118	" 12	West Bay City	Mueller & List.....	Dressed lumber.....	" ..	" ..
119	" 13	"	Theo. Hine.....	Lumber and salt.....	" ..	" ..
120	" 13	"	Salisbury Brewery.....	Beer.....	" ..	" ..
121	" 13	"	Carpenter & Co.....	Lumber, lath and salt.....	" ..	" ..
122	" 13	"	West Bay City Brewing Co.....	Beer.....	" ..	" ..
123	" 19	Stone Island.	Green & Brehman.....	Lumber and lath.....	" ..	" ..
124	" 19	Brooks.....	Kern Mfg Co.....	" ..	" ..	" ..
125	" 19	Middle Ground	E. J. Hargraves & Son.....	Lumber, lath and salt.....	" ..	" ..
126	" 19	"	Fitch Salt Co.....	Salt, fertilizers, etc.....	" ..	" ..
127	" 20	West Bay City	Russell Bros.....	Dressed lumber, etc.....	" ..	" ..
128	" 20	"	Standard Hoop Co.....	Lumber and hoops.....	" ..	" ..
129	" 20	"	Handy Bros.....	Dressed lumber & boxes.....	" ..	" ..
130	" 19	"	Crumps Mfg Co.....	Box shooks.....	" ..	" ..
131	" 22	"	W. H. Whittemore.....	Machinery and castings.....	" ..	" ..
132	" 22	"	West Bay City Mfg Co.....	Dressed lumber.....	idle	" ..
133	" 23	"	Davidson's Ship Yard.....	Wooden vessels.....	run.	full
134	" 23	"	Fred C. Ross Planing Mill.....	Dressed lumber, sash, etc.....	" ..	" ..
135	" 23	"	W. G. Pierce Hoop Mill.....	Hoops and tie plugs.....	" ..	" ..
136	" 23	"	West Bay City Mills.....	Flour, feed, etc.....	" ..	" ..
137	" 23	"	Kircher & Ueberroth.....	Doors, sash, etc.....	" ..	" ..
138	" 23	"	Crystal Steam Laundry.....	Laundry work.....	" ..	" ..
139	" 23	"	Baner & Osterhout.....	Cigars.....	" ..	" ..
140	" 24	Bay City.....	Bay City Steam Laundry.....	Laundry work.....	" ..	" ..
141	" 24	West Bay City	John Welch Saw Mill.....	Lumber.....	" ..	" ..
142	" 24	"	West Bay City Shoe Co.....	Ladies' & children's shoes.....	" ..	" ..
143	" 25	"	Flach & Hilliker Planing Mill.....	Dressed lumber, etc.....	" ..	part
144	" 25	"	F. W. Wheeler & Co. Ship Yard.....	Steel and iron vessels.....	" ..	full
145	" 25	"	Ross, Bradley & Co.....	Dressed lumber, etc.....	" ..	" ..
146	" 25	Bay City.....	F. E. Bradley.....	Lumber, lath and salt.....	" ..	" ..
147	" 25	"	National Boiler Works.....	Steam boilers, etc.....	idle	" ..
148	" 25	"	Bay City Stone Co.....	Cut stone.....	run.	full
149	" 25	"	McKinnon Mfg Co.....	Boilers, castings, etc.....	" ..	" ..
150	" 25	"	Bay City Brewing Co.....	Beer.....	" ..	" ..

THIRD ANNUAL REPORT.

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District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belis and loose pulleys where possible?	Is all machinery, vate, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
101			80	80					10	\$3.100	80			yes	yes	yes			yes	yes	no	yes	
102			80	80					10	2,200	80			yes	yes	yes			yes	yes	yes	yes	yes
103			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
104			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
105			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
106			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
107			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
108			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
109			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
110			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
111			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
112			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
113			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
114			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
115			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
116			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
117			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
118			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
119			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
120			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
121			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
122			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
123			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
124			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
125			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
126			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
127			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
128			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
129			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
130			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
131			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
132			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
133			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
134			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
135			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
136			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
137			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
138			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
139			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
140			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
141			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
142			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
143			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
144			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
145			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
146			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
147			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
148			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
149			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes
150			80	80					10	2,000	80			yes	yes	yes			yes	yes	yes	yes	yes

* 86 hours; running overtime.
 † 75 hours; running overtime.
 ‡ 72 hours; running overtime.
 § 120 hours; running overtime.

Inspection book No. 4.

TABLE No. 4.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
151	June 15	Saginaw	O'Donnel, Spencer & Co.	Sash, doors, etc.	run.	full
152	" 18	Carrolton	W. B. Marston & Co.	Salt, sash, doors, etc.	"	"
153	" 18	Saginaw	C. S. Bliss & Co.	Lumber	"	"
154	" 19	"	King & Moore Co.	Meats	"	"
155	" 19	"	Swift Electric Light Co.	Electric light	"	"
156	" 19	"	Wicks Bros.	Machinery and boilers	"	"
157	" 20	"	Mrs. L. M. Byron	Dresses and cloaks	"	"
158	" 20	"	Geo. W. Emendorfer	Bicycles	"	"
159	" 20	"	Saginaw Dry Goods and Carpet Co.	Dresses and cloaks	"	"
160	" 20	"	Hoyt Dry Goods Co.	Dresses	"	"
161	" 21	"	Consolid. Street R'y Power House.	Electricity	"	"
162	" 21	"	Saginaw Brass and Iron Foundry.	Metal castings	"	"
163	" 21	"	A. F. Bartlett & Co.	Machinery and castings	"	"
164	" 21	"	Bartlett Illuminating Co.	Electric light	"	"
165	" 22	"	McClellan File Co.	File and rasps	"	"
166	" 22	"	R. Dederich Bottling Works	Beer and carb. beverages	"	"
167	" 22	"	Mitte & Merrill	Machinery	"	"
168	" 25	"	Fischer Bros.	Bicycles	"	"
169	" 25	"	Stingel Bros. Packing House	Meats	"	"
170	" 25	"	A. Hobson Stone Yard	Stone work	"	"
171	" 27	"	Saginaw Cycle and Model Works	Bicycles and model work	"	"
172	" 27	"	W. L. Marr	Bicycles, models, etc.	"	"
173	" 29	"	Wm. Schnette & Co.	Dressed lumber, etc.	"	"
174	" 29	"	Avery & Co.	Sash, doors, etc.	"	"
175	July 2	"	Saginaw Brewing Co.	Beer	"	"
176	" 2	"	Jacob Raquet Brewery	"	"	"
177	" 2	"	J. E. Palethrope	Machinery	"	"
178	" 2	"	Saginaw Clay Manufacturing Co.	Paving brick	"	"
179	" 6	"	Edward Germain	Sash, doors, blinds, etc.	"	"
180	" 9	St. Charles	V. L. Parsons	Staves and heading	idle	"
181	" 9	"	St. Charles Hoop Co.	Hoops	run.	full
182	" 9	Oakley	F. F. Spiegel's Oakley Mills	Flour, feed, etc.	"	"
183	" 10	Owosso	Ester Carriage Co.	Carriages, buggies, etc.	"	"
184	" 10	"	Johnson Baking Co.	Bread, cakes, etc.	"	"
185	" 10	"	T., A. A. & N. M. R. B. Shops	General railroad repairs	"	"
186	" 10	"	Michigan Package Co.	Butter and lard packages	"	"
187	" 10	"	Owosso Carriage Co.	Carriages and buggies	idle	"
188	" 10	"	Owosso Central Mills	Feed	run.	full
189	" 10	"	Owosso Brewing Co.	Beer	"	"
190	" 11	"	Owosso Cooperage Co.	Barrel stock	idle	"
191	" 11	"	Ester Mfg Co., Factory A and B	Furniture	run.	full
192	" 11	"	James H. Friescke	Brick and tile	"	"
193	" 11	"	Castree & Shaw	Machinery	"	"
194	" 11	"	Owosso Casket Works	Caskets	"	"
195	" 12	"	The Times	Printed matter	"	"
196	" 12	"	L. E. Woodard Furniture Works	Furniture, sash, etc.	"	"
197	" 12	"	City Steam Laundry	Laundry work	"	"
198	" 17	Saginaw	O. M. Panach	Half tone zinc etchings	"	"
199	" 20	"	J. P. Beck	Carriages and buggies	"	"
200	" 20	"	H. and W. Helm	Extracts and medicines	"	"

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at slides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
151	60	60	200	100	---	---	11	yes	10	\$3,500	45	yes	yes	yes	yes	yes	no	---	yes	yes	yes	yes	---
152	60	60	377	377	---	---	16	yes	10	8,000	60	yes	yes	yes	yes	yes	---	---	yes	yes	yes	yes	---
153	60	60	80	80	---	---	---	---	10	1,150	80	---	---	---	---	---	---	---	---	---	---	---	---
154	60	60	30	11	1	---	---	---	10	500	60	no	no	---	---	---	---	---	---	---	---	---	yes
155	*	*	18	18	---	---	---	---	10	1,000	60	---	---	---	---	---	---	---	---	---	---	---	---
156	60	60	250	174	---	---	---	---	10	8,500	60	---	---	yes	---	---	---	---	---	---	yes	---	---
157	60	60	7	7	---	---	---	---	10	125	60	yes	yes	---	---	---	yes	---	yes	yes	---	yes	---
158	60	60	4	4	---	---	---	---	10	110	60	---	---	---	---	---	---	yes	yes	yes	---	---	yes
159	54	54	40	25	---	---	---	---	9	570	60	yes	yes	yes	yes	---	---	---	---	---	---	---	yes
160	54	54	35	20	---	---	---	---	9	490	60	---	---	---	---	---	---	---	---	---	---	---	---
161	*	*	5	5	---	---	---	---	---	340	60	---	---	---	---	---	---	---	---	no	---	---	---
162	60	60	5	5	---	---	---	---	10	280	60	---	---	---	---	---	---	---	---	---	---	---	---
163	60	60	150	45	---	---	---	---	10	2,250	60	no	no	yes	yes	---	---	---	yes	yes	---	---	---
164	*	*	7	7	---	---	---	---	10	270	60	---	---	---	---	---	---	---	---	---	---	---	---
165	60	60	80	39	1	---	---	---	10	1,000	60	---	---	yes	yes	---	---	---	---	---	yes	---	yes
166	60	60	10	5	5	---	4	yes	10	275	60	---	---	---	---	---	---	---	---	---	---	---	---
167	60	60	60	32	1	---	---	---	10	1,470	60	---	---	yes	---	---	---	---	---	---	---	---	---
168	60	60	6	6	---	---	---	---	10	166	60	---	---	---	---	---	---	---	---	---	---	---	---
169	60	60	10	6	---	---	---	---	10	300	60	yes	yes	yes	yes	---	---	---	---	---	---	---	---
170	54	54	30	10	---	---	---	---	---	500	60	---	---	---	---	---	---	---	---	---	---	---	---
171	60	60	4	3	1	---	---	---	10	90	60	---	---	---	---	---	---	---	---	---	---	---	yes
172	60	60	5	5	---	---	---	---	10	80	60	---	---	---	---	---	---	---	---	---	yes	---	---
173	60	60	85	50	---	---	---	---	10	1,200	60	---	---	---	---	---	---	---	---	---	---	---	---
174	60	60	30	22	---	---	---	---	10	925	60	no	no	yes	yes	---	---	yes	---	---	---	---	---
175	60	60	10	7	---	---	---	---	10	523	60	---	---	---	---	---	---	---	---	---	---	---	---
176	60	60	15	11	---	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	---
177	60	60	6	4	---	---	---	---	10	180	60	---	---	---	---	---	---	---	---	---	---	---	---
178	60	60	14	14	---	---	---	---	10	575	60	---	---	---	yes	---	---	---	---	no	---	---	---
179	60	60	400	189	---	---	5	yes	10	5,900	60	---	---	no	---	---	---	---	---	yes	yes	---	---
180	60	60	35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
181	60	60	45	45	---	---	1	yes	10	1,500	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
182	60	60	5	5	---	---	---	---	10	150	60	---	---	yes	yes	---	---	---	---	---	---	---	yes
183	60	60	50	20	1	---	---	---	10	850	55	yes	yes	no	---	---	---	---	---	---	---	---	---
184	†	†	9	7	2	---	---	---	10	330	60	---	---	---	---	---	---	---	---	no	---	---	---
185	60	60	125	125	---	---	---	---	10	6,000	60	---	---	---	---	---	---	---	---	---	---	---	---
186	60	60	10	4	6	---	---	---	10	200	50	no	---	no	no	---	---	---	---	---	---	---	yes
187	60	60	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
188	60	60	3	3	---	---	---	---	10	108	60	---	---	no	yes	yes	no	---	yes	no	---	yes	---
189	60	60	7	7	---	---	---	---	10	300	60	---	---	yes	---	---	---	---	yes	---	---	---	---
190	60	60	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
191	60	60	500	480	---	---	8	yes	10	16,300	60	yes	yes	yes	yes	yes	no	---	yes	yes	yes	yes	---
192	60	60	25	20	---	---	---	---	10	900	60	---	---	---	---	---	---	---	---	---	---	---	---
193	60	60	25	10	---	---	---	---	10	500	60	---	---	no	yes	yes	no	---	---	---	---	---	---
194	60	60	151	138	15	---	1	yes	10	4,700	50	yes	yes	---	---	---	---	---	---	---	yes	yes	---
195	60	60	9	6	1	---	---	---	10	250	60	---	---	---	---	---	---	---	yes	---	---	---	---
196	60	60	135	135	---	---	2	yes	10	4,950	60	---	---	yes	yes	---	---	---	---	no	yes	---	---
197	60	60	11	4	7	---	---	---	10	330	60	---	---	---	---	---	---	---	---	yes	---	---	yes
198	60	60	5	4	1	---	---	---	10	185	60	---	---	yes	yes	---	---	---	---	---	---	---	---
199	60	60	14	14	---	---	---	---	10	560	60	yes	---	---	---	---	---	---	---	---	---	---	---
200	60	60	4	4	---	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	---	---

* 154 hours; running night and day.
† 144 hours; running night and day.
‡ 66 hours; running overtime.

Inspection book No. 5.

TABLE No. 4.—CONTINUED.—

No. given factory for 1896.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
201	July 27	West Bay City	Empire Electric Laundry	Laundry work	run.	full
202	" 27	Bay City	S. G. M. Gates	Lumber	"	"
203	" 27	"	Phoenix Flouring Mill	Flour, feed, etc.	"	"
204	" 30	Saginaw	C. Merrill & Co.	Lumber, lath and salt	idle	"
205	" 30	"	Gebhart & Esterbrook	" " " "	"	"
206	" 30	"	Green, Ring & Co.	" " " "	"	"
207	" 31	Bay City	Wm. Peters	" " " "	run.	full
208	" 31	"	Bay City Industrial Works	Machinery, boilers, etc.	"	"
209	Aug. 1	"	Bay Co. Electric Light Co.	Electricity	"	"
210	" 1	"	R. Wildman	Boilers and sheet iron	idle	"
211	" 1	"	Smalley Bros. & Co.	Machinery and castings	run.	part
212	" 1	"	Whitney & Plum	Crackers, cakes, etc.	"	full
213	" 1	"	Crystal Water Co.	Mineral water	"	part
214	" 2	"	Smalley & Woodworth	Lumber and salt	"	full
215	" 2	"	Graves & Co.	Shingles	"	"
216	" 2	"	South End Lumber and Salt Co.	Lumber, lath and salt	"	"
217	" 2	"	M. Garland Standard Machine W'ks	Machinery and castings	"	"
218	" 2	"	George H. Downing	Cigars	"	"
219	" 2	"	Hitchcock & Bialy	Lumber and lath	"	"
220	" 6	Alpena	J. Levyn	Cigars	"	"
221	" 6	"	Comstock Bros.	Lumber and lath	idle	"
222	" 6	"	Albert Pack	" " "	run.	full
223	" 6	"	Alpena Industrial Works	Machinery	"	"
224	" 6	"	M. Horwitz	Cigars	"	"
225	" 6	"	Ellis Steam Laundry	Laundry work	"	"
226	" 7	"	C. W. Edwards	Cigars	"	"
227	" 7	"	Alpena Brewing Co.	Beer and carbonated bev.	"	"
228	" 7	"	Alpena Spool Co.	Spools and hose menders	idle	"
229	" 7	"	Gebhart, Morrow & Co.	Sash, doors, blinds, etc.	run.	full
230	" 7	"	Alpena Sulphite Fiber Co.	Pulp	"	"
231	" 8	"	George N. Fletcher	Lumber and lath	"	"
232	" 8	"	Alpena Cigar Co.	Cigars	"	"
233	" 8	"	P. H. Luther	Shingles	"	"
234	" 8	"	Miner Lumber Co.	Lumber and lath	"	"
235	" 8	"	Alpena Woolen Mills	Woolen goods	idle	"
236	" 8	"	Northern Extract Co.	Hemlock extract	run.	full
237	" 9	"	W. L. & H. D. Churchill	Lumber and lath	idle	"
238	" 9	"	F. W. Gilchrist	Lumber, lath and shingles	run.	full
239	" 9	"	J. M. Johnston	Sash, doors, flour and feed	"	"
240	" 9	"	W. H. Cockley	Staves	idle	"
241	" 9	"	Alpena Excelsior Works	Excelsior	run.	full
242	" 9	"	Charles B. Warren Foundry	Machinery	"	"
243	" 13	Oscoda	Pack, Woods & Co.	Lumber, lath and salt	idle	"
244	" 13	"	Oscoda Lumber Co.	Lumber, lath and shingles	run.	full
245	" 13	"	Gratwick, Smith & Fryer	Lumber, lath and salt	idle	"
246	" 13	An Sable	H. M. Loud & Sons	Lumber, lath, etc.	run.	full
247	" 13	"	Penoyer Bros.	Lumber and lath	idle	"
248	" 14	East Tawas	Ottawa Lumber Co.	Hardwood lumber	run.	full
249	" 14	"	Detroit & Mackinac E. R. Shops	Railroad repairs	"	"
250	" 14	Tawas	Thomas Armstrong	Shingles	"	"

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1898.	Hours per week running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
201	60	60	10	3	7				10	\$240	60			yes	yes	yes	no		yes	yes		yes	yes
202	62	* 180	130	80					10	4,000	80			yes	yes	yes			yes	yes			yes
203	60	60	20	19	1				10	860	60												yes
204	60		148																				
205	60		95																				
206	60		180						10	5,060	60			yes	yes	yes	no		yes	yes		yes	
207	60	60	110	110					10	4,400	80	yes	yes	yes	yes	yes	no		yes	yes		yes	
208	60	60	225	140		2	7	no	10	360	60	yes	yes	yes	yes	yes			yes	yes	yes	yes	
209	†	†	7	7																			
210	60		30																				
211	60	54	50	34					10	1,500	60			yes	yes	yes	no		yes	yes		yes	
212	60	60	25	14	4				10	550	80	yes	yes	yes	yes	yes			yes	yes		yes	
213	60	30	8						10	154	60												yes
214	60	*	85	85					10	4,000	80			no									
215	60	60	24	24					10	900	60			yes									
216	60	60	178	178					10	7,000	60												
217	60	60	60	30					10	1,400	80												
218	48	48	40	7	2				8	375	80										yes		yes
219	60	60	65	65					10	2,600	60			no	yes				yes	no			
220	48	48	16	9			2	no	8	475	60			yes									
221	60		60						10	2,800	60			yes	yes	yes	no		yes	yes		yes	
222	60	60	90	90					10	500	60								yes	yes		yes	
223	60	60	16	11					9	175	60								yes	yes			no
224	54	54	9	6					10	225	60								yes	yes			
225	60	60	9	4	5				10														
226	48	48	5	3					8	135	60												
227	60	60	15	12					10	600	60			yes	yes				yes	yes			
228	60		25	4																			
229	60	60	12	4					10	200	60			yes	yes	yes	no		yes	yes	yes	yes	
230	†	†	85	85						3,000	60			yes	yes				yes	yes	yes	yes	
231	60	60	85	85					10	3,500	60												
232	48	48	8	4					8	165	60												
233	60	60	40	40				3	yes	1,100	60								yes	yes	yes	yes	
234	60	8	106	106					10	3,925	60								yes				
235	60		8																				
236	†	†	18	18						1,000	60			yes	yes	yes	no		yes	yes	yes	yes	
237	60		90																				
238	60	60	120	120						4,500	45			no	yes	yes	no		yes	yes		yes	
239	60	60	30	8					10	375	60			yes					no	no	yes		
240	60		25																				
241	60	60	18	18					10	650	60			yes	yes	yes	no		yes	yes		yes	
242	60	60	10	9					10	520	60												
243	60		160																				
244	60	60	70	25					10	500	60			yes	yes	yes	no		yes	yes		yes	
245	60		120																				
246	60	60	285	285			5	yes	10	10,000	60				yes	yes	no		yes	yes	yes	yes	
247	60		85																				
248	60	60	25	25					10	850	60					yes	no		yes	yes		yes	
249	60	60	38	38					10	1,750	60												
250	60	60	8						10	375	60												

* 120 hours; running overtime.
† 144 hours; running night and day.
‡ 168 hours; running all the time.
§ 72 hours; running overtime.

Inspection book No. 6.

TABLE No. 4.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
251	Aug. 17	Bay City	Craney Manufacturing Co.	Vacuum pans and boilers	run.	full
252	" 14	Tawas	Daisy Roller Mills	Flour, feed, etc.	"	part
253	" 14	"	C. H. Prescott & Son	Lumber	"	full
254	" 15	East Tawas	Holland, Emery Lumber Co.	Lumb., lath, shing. & salt	"	"
255	" 15	"	East Tawas Stave Co.	Staves and heading	"	"
256	" 17	Bay City	Hardwood Manufacturing Co.	Finished lumber	"	"
257	" 17	"	Bay City Excelsior Works	Excelsior	"	part
258	" 17	"	C. C. Barker	Lumber, lath and salt	"	full
259	" 17	"	Bay City Woodenware Works	Tube, pails, etc.	"	"
260	" 17	"	E. J. Vance Box Co.	Lumber and boxes	"	"
261	" 21	Saginaw	Saginaw Manufacturing Co.	Dressed lumber, etc.	"	part
262	" 22	Palms	Isaac Parker	Brick	"	full
263	" 22	"	Medor Mercier	"	"	"
264	" 22	"	W. F. Paine	Brick and tile	idle	"
265	" 22	"	Edwin Andrews	Shingles	"	"
266	" 23	Bay City	Marine Boiler Works	Boilers and sheet iron	"	"
267	" 23	"	Marine Iron Works	Machinery	run.	part
268	" 23	"	J. M. McDonald & Son	Flour, feed, etc.	"	full
269	" 23	"	Pitts & Co.	Lumber, lath and salt	"	"
270	" 23	"	Bay City Iron Works	Machinery and castings	"	"
271	" 24	"	W. H. Nickless	Dressed lumber & boxes	"	"
272	" 24	"	Walworth & Neville Mfg Co.	Wood conduit, etc.	"	"
273	" 24	"	Troy Steam Laundry	Laundry work	"	"
274	" 24	"	Bay City Times Press Co.	Printed matter	"	"
275	" 24	"	Bay City Tribune Publishing Co.	"	"	"
276	" 26	"	Briscoe, Plumsteel & Co.	Boxes	"	"
277	" 26	"	Detroit Mill	Lumber, lath, salt, etc.	"	"
278	" 26	"	Folsom & Arnold	Lumber, lath, etc.	idle	"
279	" 26	"	Eddy Bros. & Co.	"	run.	full
280	" 26	"	McEwan Bros. & Co.	Lumber, lath and salt	idle	"
281	" 26	"	Eickemeyer, Kamm & Co.	Sash, doors, etc.	run.	full
282	" 26	"	L. B. Dolan & Co.	Boxes	"	"
283	" 26	Gladwin	Brown & Van Ness	Lumber and shingles	idle	"
284	" 26	"	L. A. Mable	Shingles	run.	full
285	" 26	"	Saylor Hoop Co.	Hoops	"	"
286	" 29	West Branch	French Lumber Co.	Lumber	idle	"
287	" 29	"	French Lumber Co.	Shingles	run.	full
288	" 29	Standish	J. E. Austin	Lumber and shingles	idle	"
289	" 29	"	Star Woodenware Works	Pails and tubs	run.	full
290	" 29	"	James Norn	Lumber and lath	"	"
291	" 29	"	Standish Stave and Heading Co.	Staves and heading	"	"
292	" 29	"	Gray Milling Co.	Flour, feed and shingles	"	"
293	" 30	West Branch	Bartholomew Bros.	Shingles and heading	"	"
294	" 30	"	Thiry, Feldmann & Co.	Sash, doors, etc.	"	part
295	" 30	Gaylord	Dayton Shoe Last Co.	Shoe lasts	idle	"
296	" 30	"	Jackson, Wiley & Co.	Staves and hoops	"	"
297	" 30	Vanderbilt	M. D. Olds	Staves	run.	full
298	" 30	"	Charles Zeckgraft	Lumber	"	part
299	" 31	Cheboygan	M. Glass, Jr.	Cigars	"	full
300	" 31	"	Murphey & Noll	"	"	"

THIRD ANNUAL REPORT.

201

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
251	60	60	80	60	---	---	6	no	10	\$2,700	60	---	---	---	---	yes	no	---	yes	---	---	yes	---
252	60	30	5	5	---	---	---	---	10	125	60	---	---	no	yes	---	---	---	yes	---	---	---	---
253	60	60	64	64	---	---	---	---	10	2,175	60	---	---	yes	---	---	---	---	no	---	---	---	---
254	60	60	325	325	---	---	4	yes	10	11,300	60	---	---	---	---	---	---	---	---	---	---	---	---
255	60	60	24	24	---	---	---	---	10	650	60	---	---	---	---	---	---	---	---	---	---	---	---
256	60	60	32	32	---	---	3	---	10	1,000	60	---	---	yes	yes	---	---	---	---	no	yes	---	---
257	60	20	8	8	---	---	---	---	10	100	60	---	---	---	---	---	---	---	---	---	---	---	---
258	60	60	75	75	---	---	---	---	10	2,900	60	---	---	yes	yes	---	---	---	---	yes	---	---	---
259	60	60	300	260	15	---	22	yes	10	8,200	60	---	---	---	---	---	---	---	---	no	no	no	yes
260	60	60	50	50	---	---	4	no	10	1,300	60	---	---	---	---	---	---	no	no	no	yes	---	yes
261	60	48	250	92	---	---	12	yes	10	1,400	60	no	no	yes	yes	---	yes	yes	yes	---	---	---	---
262	60	60	16	16	---	---	---	---	10	480	60	---	---	---	---	---	---	---	---	---	---	---	---
263	60	60	16	12	---	---	---	---	10	356	60	---	---	---	---	---	---	---	---	---	---	---	---
264	60	---	20	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
265	60	---	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
266	60	---	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
267	60	54	20	7	---	---	---	---	10	425	60	no	---	yes	yes	yes	no	---	yes	yes	yes	yes	---
268	60	*	26	26	---	---	---	---	10	1,185	60	---	---	---	---	---	---	---	---	---	---	---	---
269	60	60	135	135	---	---	---	---	10	5,500	60	---	---	---	---	---	---	---	---	---	---	---	---
270	60	30	40	25	---	---	---	---	10	1,150	60	---	---	---	---	---	---	---	---	---	---	---	---
271	60	60	30	30	---	---	1	yes	10	720	40	---	---	---	---	---	---	---	---	---	yes	---	---
272	60	60	41	40	---	---	---	---	10	1,500	55	---	---	---	---	---	---	---	---	---	---	yes	---
273	60	60	15	2	13	---	---	---	10	860	60	---	---	---	---	---	---	---	---	---	---	---	---
274	54	54	22	22	---	---	---	---	10	1,300	60	---	---	---	---	---	---	---	---	---	---	---	---
275	48	48	35	35	---	---	---	---	10	1,800	60	---	---	---	---	---	---	---	---	---	---	---	---
276	60	60	32	32	---	---	---	---	10	1,000	60	---	---	---	---	---	---	---	---	---	yes	---	---
277	60	60	135	135	---	---	---	---	10	6,000	60	---	---	yes	yes	---	---	---	---	---	---	---	---
278	60	---	125	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
279	60	60	125	125	---	---	---	---	10	5,100	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
280	60	---	140	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
281	60	60	15	13	---	---	---	---	10	600	60	---	---	yes	yes	yes	no	---	yes	no	yes	yes	---
282	60	60	20	13	---	---	1	yes	10	200	60	---	---	---	---	---	---	no	---	---	---	---	---
283	60	---	15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
284	60	60	9	9	---	---	---	---	10	400	60	---	---	---	---	yes	no	---	yes	yes	---	yes	---
285	60	60	32	32	---	---	---	---	10	1,150	60	---	---	---	---	---	---	---	---	---	---	---	---
286	60	---	30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
287	60	60	24	12	---	---	---	---	10	475	60	---	---	---	---	yes	no	---	yes	no	no	yes	---
288	60	---	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
289	60	60	100	88	2	---	5	yes	10	2,550	60	---	---	no	yes	yes	no	---	yes	no	no	yes	yes
290	60	†	39	39	---	---	---	---	10	1,500	60	---	---	---	---	---	---	---	---	---	---	---	---
291	60	60	50	30	---	---	4	yes	10	610	60	---	---	---	---	---	---	---	yes	---	---	---	---
292	60	60	13	13	---	---	---	---	10	560	60	---	---	yes	yes	---	---	---	---	---	---	---	---
293	60	60	14	14	---	---	---	---	10	500	60	---	---	---	---	---	---	---	---	---	---	---	---
294	60	40	8	5	---	---	---	---	10	145	60	---	---	yes	yes	---	---	---	---	---	yes	---	---
295	60	---	100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
296	60	---	40	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
297	60	60	26	26	---	---	---	---	10	1,250	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
298	60	40	12	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
299	48	48	10	5	---	---	---	---	8	170	60	---	---	---	---	---	---	---	---	---	---	---	---
300	48	48	10	4	---	---	---	---	8	150	60	---	---	---	---	---	---	---	---	---	---	---	---

* 144 hours; running night and day.

† 66 hours; running overtime.

‡ Permit given by inspector.

Inspection book No. 7.

TABLE No. 4.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
301	Aug. 31	Cheboygan...	Cheboygan Lumber Co.	Lumber and lath	run.	full
302	" 31	"	D. Quay & Sons	Shingles	"	"
303	" 31	"	Shellborn & Rich	Machinery	"	"
304	Sept. 2	"	W. & A. McArthur	Lumber and flour	"	"
305	" 2	"	City Steam Laundry	Laundry work	"	part
306	" 2	"	M. D. Olds	Staves	"	full
307	" 2	"	Cheboygan Tribune	Printed matter	"	"
308	" 2	"	Star Steam Laundry	Laundry work	"	part
309	" 2	"	Thompson, Smith & Son	Lumber, etc.	"	full
310	" 2	"	Whitehall Lumber Co.	Lumber and lath	idle	"
311	" 2	"	Swift Bros.	Lumber, lath and shingles	run.	full
312	" 2	"	Patton & Reid	Lumber and lath	"	"
313	" 3	"	Cheboygan Mf'g Co.	Sash, doors, etc.	"	"
314	" 3	"	Frister & Vogel Leather Co.	Leather	"	"
315	" 3	"	L. Littlejohn	Shingles	idle	"
316	" 3	"	Cheboygan Brew'g and Malt'g Co.	Beer and malt	run.	full
317	" 4	Wolverine	Guelph Patent Cask Co.	Veneer	"	"
318	" 4	"	P. E. Haskett	Lumber and shingles	"	"
319	" 4	Waters	Henry Stephens & Co.	Lumber and lath	"	"
320	" 5	Bagley	Michelson & Hanson Lumber Co.	Lumber	"	"
321	" 5	Lewiston	Michelson & Hanson Lumber Co.	Lumber and lath	"	"
322	" 5	Grayling	Selling & Hanson	"	"	"
323	" 5	"	Selling & Hanson	Dressed lumber	"	"
324	" 5	"	Selling & Hanson	Shingles and lumber	"	"
325	" 6	Pinconning	Edward Jennings	Shingles, heading, etc.	"	"
326	" 6	"	W. H. Ford	Staves and heading	"	"
327	" 6	Kawkawlin	Hagarty, Mosher & Co.	Hoops	"	"
328	" 10	Bay City	Jonathan Boyce & Son	Lumber, lath, sash, etc.	"	"
329	" 10	"	D. Curvall & Co.	Lumber and shingles	"	part
330	" 10	"	J. E. Hall	Shingles	"	"
331	" 11	"	Meyer & Russell	Mattress springs & pillows	"	full
332	" 11	"	The Eddy-Sheldon Co.	Dressed lumber	"	"
333	" 12	Merrill	Liken, Brown & Co.	Staves, heading & lumber	"	"
334	" 12	"	C. V. Johnston	Lumber	idle	"
335	" 12	Hemlock	Bright Star Foundry	Castings	run.	full
336	" 13	Coleman	Mich. Head Lining and Hoop Co.	Head lining, hoops, etc.	idle	"
337	" 13	"	St. Louis Hoop and Stave Co.	Hoops and staves	"	"
338	" 13	"	J. E. Curtice & Son	Heading and staves	run.	full
339	" 13	"	George Cooper	Heading, staves, etc.	idle	"
340	" 13	"	Willis & Mason	Shingles, lumber & feed	"	"
341	" 13	"	Simons, McMorris & Co.	Staves and heading	"	"
342	" 13	"	E. P. Hickox	Staves and hoops	run.	full
343	" 14	Sanford	Bliss & Powins	Shingles	idle	"
344	" 14	Midland	Midland Chemical Co.	Bromides & disinfectants	run.	full
345	" 14	"	Cleveland Woodenware Co.	Dressed lumber, etc.	"	"
346	" 16	"	W. P. Shepard	Shingles	"	part
347	" 16	"	Midland Salt & Lumber Co.	Lumber, lath and sash	idle	"
348	" 16	"	Upper Roller Mills	Flour and feed	"	"
349	" 16	"	Wm. Patrick	Shingles and sash	run.	part
350	" 16	"	Midland Woodenware Works	Tubs, pails, etc.	idle	"

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1895.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
301	80	*	125	125	---	---	---	---	10	\$5,000	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
302	80	80	27	27	---	---	1	yes	10	850	60	---	---	---	---	---	---	---	---	---	---	---	---
303	80	80	12	6	---	---	---	---	10	270	60	---	---	yes	yes	---	---	---	---	---	---	---	---
304	80	80	130	130	---	---	---	---	10	4,265	60	---	---	no	yes	---	---	---	---	---	---	---	---
305	80	40	6	2	---	2	---	---	10	110	60	---	---	---	---	---	---	---	---	---	---	---	no.
306	80	80	43	48	---	---	---	---	10	1,100	60	---	---	---	---	---	---	---	---	no	---	---	---
307	80	80	10	6	---	---	---	---	10	225	60	---	---	---	---	---	---	---	---	yes	---	---	---
308	80	40	10	2	---	4	---	---	10	140	60	---	---	---	---	---	---	---	---	---	---	---	yes.
309	80	80	114	114	---	---	---	---	10	8,900	60	---	---	yes	yes	---	---	---	---	---	---	---	yes.
310	80	---	81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
311	80	*	184	184	---	---	---	---	10	6,250	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
312	80	80	75	75	---	---	2	yes	10	8,000	60	---	---	---	---	---	---	---	---	---	---	---	---
313	80	80	15	11	---	---	---	---	10	500	60	---	---	---	---	---	---	---	---	no	yes	---	---
314	80	80	150	125	---	---	1	yes	10	5,000	60	---	no	---	---	---	---	---	---	yes	---	---	---
315	80	---	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
316	80	80	5	5	---	---	---	---	10	375	60	---	---	yes	yes	yes	no	---	yes	yes	---	yes	---
317	80	80	120	80	---	---	4	yes	10	2,800	60	---	---	---	---	---	---	---	---	---	---	---	---
318	80	80	25	25	---	---	---	---	10	1,250	60	---	---	yes	yes	---	---	---	---	---	---	---	---
319	80	80	180	180	---	---	---	---	10	6,900	60	---	---	---	---	---	---	---	---	---	yes	---	---
320	80	80	85	35	---	---	---	---	10	900	60	---	---	---	---	---	---	---	---	---	---	---	---
321	80	80	112	112	---	1	2	no	10	3,600	60	---	---	---	---	---	---	---	---	---	yes	---	---
322	80	80	57	57	---	---	---	---	10	1,400	60	---	---	---	---	---	---	---	---	---	---	---	---
323	80	80	12	12	---	---	---	---	10	450	60	---	---	---	---	---	---	---	---	---	---	---	---
324	80	80	77	77	---	---	---	---	10	1,800	60	---	---	yes	yes	---	---	---	---	---	---	---	---
325	80	80	65	55	---	---	4	no	10	1,750	60	---	---	---	---	---	---	---	---	no	yes	---	---
326	80	80	45	45	---	---	---	---	10	1,200	60	---	---	---	---	---	---	---	---	---	---	---	---
327	80	80	45	45	---	---	2	yes	10	1,650	60	---	---	---	---	---	---	---	---	yes	no	yes	---
328	80	80	175	160	---	---	---	---	10	4,500	60	---	---	yes	yes	---	---	---	---	---	yes	---	---
329	80	40	15	6	---	---	---	---	10	225	60	---	---	---	---	---	---	---	---	yes	---	---	---
330	80	30	48	48	---	---	---	---	10	1,000	60	yes	---	---	---	---	---	---	---	---	---	---	---
331	80	60	13	8	2	---	---	---	10	200	60	---	---	---	---	---	---	---	---	---	---	yes	---
332	80	60	40	40	---	---	---	---	10	1,450	60	---	---	---	---	---	---	---	---	---	yes	---	---
333	80	60	60	44	---	---	---	---	10	1,600	60	---	---	---	---	---	---	---	---	---	---	---	---
334	80	---	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
335	80	60	13	9	1	---	---	---	10	300	60	---	---	---	---	---	yes	no	---	yes	yes	---	yes
336	80	---	90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
337	80	---	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
338	80	60	52	52	---	---	---	---	10	1,550	60	---	---	---	---	yes	no	---	yes	no	yes	yes	---
339	80	---	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
340	80	---	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
341	80	---	15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
342	80	60	40	23	---	---	---	---	10	650	60	---	---	---	---	yes	no	---	yes	yes	yes	yes	---
343	80	---	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
344	†	†	8	---	---	---	---	---	12	480	60	---	---	yes	yes	yes	no	---	yes	yes	yes	yes	---
345	80	60	93	60	---	---	3	yes	10	1,700	60	---	---	---	---	---	---	---	---	---	yes	---	---
346	80	40	9	9	---	---	---	---	10	865	60	---	---	---	---	---	---	---	---	---	---	---	---
347	80	---	55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
348	80	---	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
349	80	40	30	20	---	---	---	---	10	400	60	---	---	no	yes	yes	no	---	yes	yes	---	yes	---
350	80	---	85	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* 120 hours; running overtime.

† 144 hours; running night and day.

Inspection book No. 8.

TABLE No. 4.—CONTINUED.—

No. given factory for 1898.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
351	Sept. 16,	Freeland	Thos. Tindle & Co.	Staves	run.	
352	" 17	Caro.	E. Parks	Shingles	idle	part
353	" 17	"	Liken, Brown & Co.	Staves	run.	
354	" 17	"	W. A. Forbes & Co.	Sash, doors, shingles, etc.	idle	full
355	" 17	"	Tuscola County Advertiser	Printed matter	"	"
356	" 18	Vassar	Frank Miller	Sash, doors, etc.	"	"
357	" 18	"	Frank Miller, Saw Mill	Lumber	idle	
358	" 18	"	Miller & Evans Brick & Tile Yard	Brick and tile	run.	full
359	" 18	"	Vassar Woolen Mills	Woolen goods	"	"
360	" 21	Owosso	Robbins Table Co.	Tables	"	"
361	" 21	"	W. H. Mason & Son	Inside finish and spokes	"	"
362	" 21	"	Owosso Handle Works	Handles, etc.	"	"
363	" 23	Saginaw	W. H. Grennell	Seeds	"	"
364	" 24	"	Wm. G. Evans	Bookbind'g & job print'g	"	"
365	" 24	"	Emery & Simpson	Dressed lumber & boxes	"	"
366	" 24	"	F. & P. M. B. E. Shops	Railroad repairs	"	part
367	" 30	"	Jackson & Church Iron Works	Machinery and castings	"	full
368	" 30	"	McGregor & Jackson Boiler Works	Boilers and sheet iron	"	"
369	Oct. 1	Akron	Mallory & Shannon	Cheese boxes	"	"
370	" 1	"	Liken & Bach	Staves and heading	"	"
371	" 1	Unionville	Liken & Bach	" " "	"	"
372	" 2	Sebewaing	F. F. Winter	Sash, doors, etc.	"	"
373	" 2	"	Liken & Bach	Staves and heading	"	"
374	" 2	"	Sebewaing Manufacturing Co.	Furnit., sash, doors, etc.	"	"
375	" 3	Linkville	Liken & Bach	Staves	"	"
376	" 3	Pigeon	Liken & Bach	Staves and lumber	"	"
377	" 3	Bad Axe	Bad Axe Planing Mill Co.	Sash, doors, etc.	"	"
378	" 4	Sand Beach	J. Jenks & Co.	Flour, feed, etc.	"	"
379	" 4	"	J. Jenks & Co.	Salt	"	"
380	" 4	Grindstone C'y	The Cleveland Stone Co.	Building stone, etc.	"	"
381	" 4	Eagle Bay	Huron Stone Co.	" " "	"	"
382	" 5	Bay Port	Bay Port Quarries	Stone and lime	"	"
383	" 5	Fair Grove	Liken & Bach	Staves	idle	
384	" 5	Reese	Gardner & Peterman	"	"	"
385	" 23	Saginaw	Linton Manufacturing Co.	Sash, doors, boxes, etc.	run.	full
386	" 30	"	Farmer's Handy Wagon Co.	Farm wagons	"	"
387	" 31	Flint	M. Ephriam	Cigars	"	"
388	" 31	"	Flint Cigar Co.	"	"	"
389	" 31	"	Old Sol Cigar Co.	"	"	"
390	" 31	"	Clasen & Street	"	"	"
391	Nov. 1	"	S. C. Randall & Co.	Dressed lumber, sash, etc.	"	part
392	" 1	"	Wolverine Citizen	Printed matter	"	full
393	" 1	"	C. Rippe	Cigars	"	"
394	" 1	"	M. D. Warren	Machinery and castings	"	"
395	" 1	"	Revolving Hat Case Co.	Hat cases	"	"
396	" 1	"	Holmes & Wells Cigar Co.	Cigars	"	"
397	" 1	"	Home Steam Laundry	Laundry work	"	"
398	" 2	"	Evening Journal	Printed matter	"	"
399	" 2	"	Flint Pantaloon Co.	Pantaloons	"	"
400	" 2	"	Weller & Austin	Printed matter, etc.	"	"

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1886.	Hours per week, running full time?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary.	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
351	60	25	7																			
352	60	30	15	7				10	\$260	60					yes	no		yes	yes	no	yes	
353	60	50																				
354	60	13	13					10	350	60					yes	no		yes	no	yes	yes	
355	60	12	3	8				10	160	60					yes			yes	yes	yes	yes	
356	60	12	8					10	300	60			yes	yes	"	"		"	no	"	"	
357	60	30																				
358	60	20	20					10	550	60			yes	yes	yes	no		yes	yes		yes	
359	60	35	23	7				10	785	60	no		yes	yes	yes	no		"	"		yes	
360	60	50				2	yes	10	1,600	60			no		yes			"	"	yes	"	yes
361	60	10	6					10	200	60			"	"	"	"		no	no	"	"	
362	60	15	12					10	450	60	no		yes	"	"	"		yes	"		"	
363	60	41	5	36		4	yes	10	680	60					"	"		"	"		"	yes
364	60	8	7	1				10	325	60			yes	yes	"	"		yes	no	yes	"	
365	60	60	30			3	yes	10	675	45			no		"	"		no	no	yes	"	
366	60	54	330	234				10	10,500	60			yes	"	"	"		yes	yes	"	"	
367	60	32	31	1				10	1,895	60				"	"	"		"	no			yes
368	60	30	30					10	825	60				"	"	"		"	yes		"	
369	60	7	7					10	225	60				"	"	"		"	no			
370	60	30	30			2	yes	10	900	60				"	"	"		"	yes	yes	"	
371	60	30	30			1	"	10	900	60				"	"	"		"	"	"	"	
372	60	8	4					10	180	60				"	"	"		"	no	"	"	
373	60	35	35			3	yes	10	900	60				"	"	"		"	yes	"	"	
374	60	30	22			2	"	10	500	50	yes	yes	yes	yes	"	"		"	"	"	"	
375	60	15	15					10	700	60				"	"	"		"	"	"	"	
376	60	15	15					10	700	60			yes	yes	"	"		"	"	yes	"	
377	60	11	8					10	320	60			no	"	"	"		"	"	"	"	
378	72	8	8					12	310	60			yes	"	"	"	no	"	"	"	"	
379	* 8	8	8						300	60			"	"	"	"		"	"	"	"	
380	60	125						10	3,800	60				"	"	"		"	"	"	"	
381	60	40	20					10	850	60				"	"	"		"	"	"	"	
382	60	100	60					10	2,400	60				"	"	"		"	"	"	"	
383	60	15																				
384	60	15																				
385	60	200	117			10	yes	10	3,200	45	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
386	60	70	23	1		1	"	10	900	†30			"	"	"	"		"	no	no	"	yes
387	48	15	8	1				8	420	60			"	"	"	"		"	"	"	"	
388	48	25	12	4				8	675	60	no		"	"	"	"		"	"	"	"	yes
389	48	25	11	4				8	700	60				"	"	"		"	"	"	"	
390	48	16	12	2				8	700	60				"	"	"		"	"	"	"	
391	60	54	25	22				10	790	60			no	yes	"	"		yes	no	yes	"	
392	60	9	6	1				10	270	60				"	"	"		"	yes		no	no
393	48	4	2					8	90	60			yes	yes	"	"		"	"		yes	
394	60	20	6					10	300	60			"	"	"	"		yes	yes			
395	60	8	7	1				10	250	60			"	"	"	"		"	"			
396	48	20	16	4				8	750	60			"	"	"	"		"	yes		"	yes
397	60	14	6	6				10	315	60			"	"	"	"		yes	yes		"	"
398	60	12	6	6				10	400	60			"	"	"	"		"	"		no	
399	60	75	18	51				10	1,500	60		no	"	"	no	"		"	"		yes	yes
400	60	15	5	4				10	275	60			"	"	yes			"	"			

* 163 hours; running all the time.

† Permit given by inspector.

Inspection book No. 9.

TABLE No. 4.—CONCLUDED.—

No. given factory for 1895.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
401	Nov. 2	Flint	E. M. Passmore	Laundry work	run.	full
402	" 2	"	Lewis' Strawboard Mill	Strawboard	"	"
403	" 2	"	Flint Wagon Works	Wagons, carriages, etc.	"	"
404	" 5	Corunna	Fox & Mason	Furniture	"	"
405	" 6	Owosso	Owosso Mfg Co.	Screen doors, etc.	"	"
406	" 7	"	Evening Argus	Printed matter	"	"
407	" 8	Flint	Flint Globe	"	"	"
408	" 8	"	W. A. Paterson	Carriages, buggies, etc.	"	"
409	" 8	"	Webster Vehicle Co.	"	"	"
410	" 8	"	J. B. Armstrong Mfg Co.	Springs, etc.	"	"
411	" 9	"	Beardslee, Gillies & Co.	Sash, doors, etc.	"	part
412	" 9	"	Flint Woolen Mills	Woolen goods	"	full
413	" 9	"	W. F. Stewart	Carriages & buggy bodies	"	"
414	" 9	"	Flint Road Cart Co.	Carts, buggies, etc.	"	"
415	" 30	Bay City	Estey & Calkins	Dressed lumber	idle	"
416	" 30	"	Matthew Lamont	Sash, doors, etc.	run.	part
417	" 30	"	Bay City Electric Light Plant	Electric light	"	full
418	" 30	"	C. R. Hawley	Dresses, cloaks, etc.	"	"

District No. 4.

O. O. Krapf, Deputy Inspector.

No. given factory for 1895.	Hours, per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
401	60	60	8	2	3	---	---	---	10	\$110	60	---	---	no	yes	yes	no	---	yes	yes	---	no	no
402	*	*	20	20	---	---	---	---	10	850	60	---	---	yes	yes	---	---	---	---	---	---	---	
403	60	60	150	125	---	---	---	---	10	4,400	60	---	no	yes	yes	---	---	yes	---	no	no	---	
404	60	60	55	55	---	---	2	no	10	1,700	†30	---	---	no	---	---	no	---	---	yes	---	---	
405	60	60	200	105	---	---	4	yes	10	3,000	60	---	yes	---	---	---	---	---	---	yes	---	---	
406	60	60	9	8	1	---	---	---	10	310	80	---	---	yes	---	---	---	---	---	---	---	yes	
407	60	60	10	9	1	---	---	---	10	850	60	---	---	---	---	---	---	---	---	---	---	---	
408	60	60	200	85	15	---	---	---	10	3,200	60	---	yes	---	---	---	no	---	---	yes	---	---	
409	60	60	75	35	---	---	---	---	10	1,485	60	---	---	---	---	---	---	---	---	---	---	---	
410	60	60	50	40	---	---	---	---	10	1,300	60	---	---	yes	yes	---	---	yes	yes	---	---	---	
411	60	50	20	12	---	---	---	---	10	550	60	---	---	---	---	---	---	yes	---	no	yes	---	
412	60	60	110	48	52	---	---	---	10	2,050	60	---	---	---	---	---	---	yes	---	yes	---	yes	
413	60	60	75	50	---	---	---	---	10	2,000	60	---	---	---	---	---	---	---	---	yes	---	---	
414	60	60	125	80	---	---	---	---	10	3,900	60	yes	yes	yes	yes	---	---	yes	---	---	---	---	
415	60	---	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
416	60	45	75	16	---	---	---	---	10	625	60	---	---	yes	yes	yes	no	---	no	no	yes	yes	
417	60	60	5	5	---	---	---	---	10	240	80	---	---	---	---	---	---	no	yes	---	---	---	
418	60	60	25	2	13	---	---	---	10	380	60	---	yes	yes	yes	---	yes	yes	---	---	---	yes	

* 144 hours; running night and day.

† Permit given by inspector.

DEDUCTIONS FROM TABLE NO. 4.

The fourth factory inspection district is composed of the counties of

Alcona,	Gladwin,	Otsego,
Alpena,	Huron,	Presque Isle,
Arenac,	Iosco,	Roscommon,
Bay,	Midland,	Saginaw,
Cheboygan,	Montmorency,	Shiawassee,
Crawford,	Ogemaw,	Tuscola.
Genesee,	Oscoda,	

This district is known as the "Saginaw District," and is fast becoming a great manufacturing centre. Much of the territory is in the newer portions of the State, where lumbering is yet the principal industry. The goods manufactured, handled or sold are given in the following list, which shows the kind and number of each. This will be interesting as showing the industries which predominate.

Tubs, pails and barrels.....	5	Baked goods.....	3
Baskets.....	1	Dust collectors and furnace feeders.....	1
Boxes, clothes reels, cisterns, etc.....	6	Rules.....	1
Furniture, office desks and tables.....	10	Harnesses and collars.....	1
Beer, porter, carbonated bev- erages, etc.....	14	Ax and pick handles and lum- bering tools.....	4
Cigar boxes.....	1	Brass goods.....	1
Cigars.....	26	Staves, heading, etc.....	35
Provisions.....	14	Cars and railroad repairs.....	4
Wooden dishes.....	2	Cheese boxes.....	1
Shade rollers.....	1	Strawboard.....	1
Musical instruments.....	2	Hat cases.....	1
Electricity.....	6	Saws.....	1
Ladies' clothing, etc.....	7	Graphite, paints, etc.....	1
Sash, doors, etc.....	20	Bicycles, carriages, etc.....	14
Machinery, castings, boilers, etc.....	27	Wooden pipe and salt.....	1
Lumber, lath, salt, etc.....	122	Rags, metals, etc.....	2
Seed cleaners.....	1	Vises and siphons.....	1
Laundry work.....	14	Wire reels, spools and hose menders.....	2
Soap.....	1	Box shooks, butter and lard packages.....	2
Newspapers, job printing, etc.	21	Ladies and children's shoes..	1

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Steel and iron vessels.....	1	Woolen goods.....	3
Lime, grindstone, building stone, etc.....	5	Excelsior.....	2
Meats.....	2	Vacuum pans and boilers.....	1
Files and rasps.....	1	Shoe lasts.....	1
Paving brick, brick and tile.....	6	Leather.....	2
Caskets.....	1	Veneer.....	1
Half toned zinc etchings.....	1	Springs, pillows, etc.....	2
Extracts and patent medicine.....	1	Inside finish and spokes.....	1
Mineral water.....	1	Seeds, etc.....	1
Pulp.....	1	Pantaloons.....	1
Hemlock extracts, bromides and disinfectants.....	2	Screen doors, etc.....	1
		Wood conduit.....	1
Whole number factories inspected.....			418

Number of factories running.....	364
Number of factories idle.....	54

Whole number of factories inspected..... 418

Number of factories running full time.....	341
Number of factories running part time.....	23

Whole number of factories running..... 364

This shows 87 per cent of the factories in this district were running, and of those about 94 per cent were running full time.

HOURS OF LABOR PER WEEK.

Number running 168 hours.....	2
Number running 154 hours.....	3
Number running 144 hours.....	6

Whole number running double force..... 11

Number running overtime.....	10
Average hours per week when running full time.....	61½
Average hours per week at present for those running.....	61¾

Number of hours per week when running full time.....	25,651
Number of hours per week as running at present.....	22,476

Loss in hours per week..... 3,175

This shows that a little over ten hours is required for a day's work, there being 10 factories that work overtime and 11 that run night and day. In the latter two sets of operatives are employed. A few also run on Sundays. A careful analysis would show that 10 hours is a recognized day's work. It also shows a loss of $31\frac{1}{2}$ days of 10 hours for each week compared with what it would be if these factories were running full time. Computed at \$1.31 per day, the average paid these employes, it would be \$69.32 per day; \$415.92 each week; \$1,802.32 each month, and \$21,627.84 each year.

EMPLOYES.

Number employed when running full capacity.....	23,832
Number employed at present.....	16,469
Number less full capacity.....	7,363
Number of males employed at present.....	15,782
Number of females employed at present.....	687
Whole number employed at present.....	16,469

The factories in this district are running with less than 69 per cent of full capacity, a loss of over 31 per cent of what the plants are capable of doing, which loss of labor computed at \$1.31 per day means a loss of \$9,645 each day; \$57,870 each week; \$250,770 each month, or \$3,009,240 each year. To this should be added the \$21,627 lost by reason of factories running short time, and we find a loss to labor in these factories of \$3,030,867 each year.

The female employes are not as well represented in this district, being but a little over 4 per cent of the whole number employed. Females are employed in 87 factories, while all but three employ males.

CHILD LABOR.

Number that employed children under 14 years of age.....	4
Number of children employed under 14 years of age.....	7

These figures show that the child labor law was generally complied with in this district. The 7 children that were employed were ordered discharged immediately.

Number of factories that employ children over 14 and under 16....	70
Number of such children employed.....	300

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Number of male children employed under 16.....	282
Number of female children employed under 16.....	18

Whole number employed between 14 and 16.....	300
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Number that keep registers and statements on file of all children employed	60
Number that do not keep such registers and statements.....	9
Number that do not answer.....	1

Whole number employing children under 16.....	70
---	----

This shows a very small per cent of children working in these factories. But very few failed to comply with the law regarding statements and registers, and they were notified to immediately do so.

MINORS.

That part of the law relative to the hours per week required of females under 21 and males under 18 is well observed, 59 hours per week being the average time required.

There are no factories in this district that allow females under 21 or males under 18 to clean machinery while in motion. Those not answering this question are evidently factories not employing this class of labor.

RELATIVE TO WAGES.

Number that say wages have been increased since Jan. 1, 1894.....	18
Number that say wages have been reduced since Jan. 1, 1894.....	76
Number that say wages have not been increased nor reduced since Jan. 1, 1894	270

Whole number of factories running	364
---	-----

Number that give per cent of increase.....	18
Number that give per cent of decrease	73

Average increase.....	9½ per cent
Average decrease	10½ per cent

These figures show that in about 74 per cent of the factories wages have remained the same, while about 26 per cent report a change. About 5 per cent report an increase, and 21 per cent report a decrease. It is very evident that no considerable change has been made since January 1, 1894.

Aggregate amount of monthly pay roll for those running	\$562,600
Average monthly pay roll for those running	1,546
Average per month for each employe	\$34.16

DINNER HOUR.

Number of factories that allow 60 minutes for dinner.....	341
Number of factories that allow 55 minutes for dinner.....	2
Number of factories that allow 50 minutes for dinner.....	5
Number of factories that allow 45 minutes for dinner.....	10
Number of factories that allow 40 minutes for dinner.....	2
Number of factories that allow 30 minutes for dinner.....	4

Whole number of factories running..... 364

It will be seen that about 94 per cent of the factories inspected allow a full hour for dinner. The inspector for special reasons has permitted six to allow less than 45 minutes.

HOISTING SHAFTS, ELEVATORS AND STAIRS.

Number that have hoisting shafts and well holes properly inclosed or secured.....	44
Number that do not have such protection	11
Number where there are no hoisting shafts or well holes.....	309

Whole number of factories running..... 364

Number that have automatic trap doors or gates provided in all floors where elevators are used	40
Number that do not have such doors or gates.....	14
Number that have no elevators.....	310

Whole number of factories running..... 364

Number that have stairs properly protected	223
Number that do not have stairs properly protected.....	25
Number that have no stairs.....	116

Whole number of factories running..... 364

Number that have stairs properly screened.....	247
Number that do not have stairs properly screened.....	1
Number that have no stairs.....	116

Whole number of factories running..... 364

The inspector found but little opposition to the law requiring this protection, and in all cases received assurances that it would be obeyed. Many of these changes have been made since the inspector's visit, and especially has the matter of elevator protection received prompt attention.

DOORS AND FIRE ESCAPES.

That section of the law requiring doors to open outward or slide where practicable was found to have been closely observed. But one factory was found where a change was ordered, and not one was found where doors were locked or bolted during working hours.

Comparatively few factories in this district needed fire escapes. Only four orders were made. The inspector was very careful in this respect, and received assurances that his orders would be complied with.

MACHINERY, ETC.

Number that have proper shifters for throwing belts and loose pulleys where possible.....	306
Number that do not have such shifters, etc.....	12
Number that have no belting.....	46
Whole number of factories running.....	364
Number that have vats, pans, saws, cogs, belting, gearing, shafting, set screws and machinery properly guarded.....	275
Number that do not have such machinery guarded.....	47
Number that have no vats, pans, etc.....	42
Whole number of factories running.....	364

This indicates that there are but very few factories not provided with proper appliances for shifting belts. Conveniences of this kind are generally made voluntarily, but in a few cases orders had to be given.

Regarding the safety of all machinery, vats, pans, etc., over 85 per cent of the whole were found properly guarded. In all others the necessary changes and guards were ordered. This is one of the most important items in inspection.

BLOWERS AND DUST ARRESTERS.

Number that have exhaust fans provided for carrying off dust where necessary	119
Number that do not have such exhaust fans	13
Number not necessary	232
Whole number of factories running	364

In this respect there is a great diversity of opinion. It seems to be a settled conviction that where machinery creates dust some device should be provided to carry such dust away, but in many instances the employees object to such devices as being in their way. The inspector has been very careful that the law should be obeyed in this respect. Wherever the health or comfort of the operatives were endangered, changes were ordered.

SANITARY.

Only two of these 418 factories were found where suitable wash rooms or water closets were not provided. Those in charge of factories more fully realize the necessity of providing suitable sanitary conveniences for their employees, and the inspector had very little trouble in this line.

As to separate closets for females, five places were inspected where there was a deficiency in this respect. Orders were made and assurances given that the law would be complied with.

REMARKS.

Comparisons can be made by a study of this table. These deductions only take up the principal items connected with the inspection. Those interested can gain much more information by further comparisons.

The changes ordered and the accidents reported follow this. Factories are known by their inspection number, the number preceding each change ordered or accident.

CHANGES ORDERED DURING YEAR.

DISTRICT NO. 4.

[The number refers to the inspection number in table.]

- No. 1.—Ordered exhaust fans; railing around engine shaft, and guards for elevator.
- No. 6.—Shifters and loose pulleys ordered on saw machine.
- No. 15.—Exhaust fan for dust collector ordered.
- No. 20.—Required exhaust fans connected with sanding machines; guards for one rip saw on second floor, and shifters on all machines not already provided.
- No. 44.—Balance wheel on shears required guarded.
- No. 49.—Ordered caps over keys on end of balance wheels or over shafts on printing presses so made as to cover or guard head of keys.
- No. 53.—Required handrails on stairway, also guard around extreme south roll on second floor.
- No. 55.—Ordered handrail placed around stairway.
- No. 61.—Automatic gates for elevator ordered.
- No. 65.—Ordered elevator guarded, and shifters on machines not already provided with them.
- No. 68.—Ordered guard around wheel on gummer.
- No. 69.—Handrail on stairway ordered.
- No. 100.—Required gates for elevator.
- No. 101.—Exhaust fan and proper connections to carry away dust from polishing, grinding and buffing wheels ordered.
- No. 105.—Ordered one fire escape, and gates for elevator. [Fire escape erected July 5, 1895.—Insp.]
- No. 106.—Ordered shop to be kept clean and free from dust.
- No. 110.—Ordered three boys under 14 years of age discharged; statements kept on file of all children under 16 years of age, and shifters on all machines not already supplied.
- No. 112.—Ordered guard around fly wheel on engine where possible.

- No. 118.—Guard around fly wheel on engine shaft ordered.
- No. 130.—Ordered one boy under 14 years of age discharged; shifters on all machines not already provided; handrail on all stairways, and guards for elevator on first and second floors.
- No. 137.—Required dust collectors and shifters on all machines not so provided.
- No. 143.—Ordered statements placed on file of all children employed under the age of 16 years; exhaust fan for collecting dust; guards for line shaft up stairs and shifters on all machines not so provided.
- No. 151.—Guards for elevator ordered.
- No. 161.—Ordered guards along both sides of all belts running dynamos, also railing around well hole.
- No. 163.—Required automatic gates for elevator.
- No. 174.—Ordered elevator guarded.
- No. 178.—Guard around fly wheel on engine, and handrail on stairway ordered.
- No. 179.—Ordered handrails on stairways, and automatic gates for elevator.
- No. 183.—Required handrails on all stairways.
- No. 184.—Guards for gearing on mixing machine ordered.
- No. 185.—Required guard around fly wheel on shears.
- No. 186.—Ordered guard for fly wheel on forming machine; handrails on all stairways; stairs screened at sides and bottom, and guard or trap door for well hole.
- No. 189.—Guard around fly wheel on engine shaft ordered.
- No. 194.—Required railings around opening and along stairways.
- No. 196.—Ordered guards over planer counter shaft; statements kept on file of all children employed under 16 years of age, and dust collector system extended and improved.
- No. 207.—Ordered two boys under 14 years of age discharged, and registers kept of children employed under 16 years of age.
- No. 214.—Required handrail on stairway leading to filing room.
- No. 219.—Required guards around engine shaft, pulley and fly wheel; also handrail on stairway.
- No. 220.—Ordered registers kept of all children under 16 years of age.
- No. 225.—Separate closet for females ordered.
- No. 231.—Ordered two belts guarded that run circular and band saws.

- No. 235.—Required elevator guarded; stairway enclosed, and separate closets for females.
- No. 238.—Required handrail on stairway.
- No. 239.—Ordered shifters on all machines not already provided, and guard on rip saw.
- No. 246.—Ordered handrails on all stairways not already provided with them.
- No. 251.—Ordered statements placed on file of all children employed under 16 years of age.
- No. 252.—Ordered handrails around stairways; steps over shafts in basement where employes are in habit of stepping over the shaft; guards around fly wheel on engine shaft and around engine platform.
- No. 256.—Required rip saw guarded.
- No. 257.—Ordered railing placed around main driving pulley on engine.
- No. 260.—Ordered shifters on all machines; guard for saw, and statements placed on file of all children employed under 16 years of age.
- No. 261.—Automatic gates for elevator ordered.
- No. 267.—Ordered guard around well hole.
- No. 271.—Ordered railing along side of main drive pulley, and statements placed on file with name and age of all employed under 16 years.
- No. 281.—Required shifters, and guard for rip saw.
- No. 287.—Ordered main belt guarded; also exhaust fan to carry away dust from machines.
- No. 289.—Required guard around fly wheel and main belt; dust collector, and separate closet for females.
- No. 290.—Ordered large pulley and belt on first floor guarded, and handrails around stairways.
- No. 301.—Handrails on three stairways in flour mill ordered.
- No. 306.—Guard around main pulley on engine shaft ordered.
- No. 313.—Required planer shaft guarded; also set screws on line shaft covered.
- No. 314.—Automatic gates for two elevators ordered.
- No. 321.—Ordered boy under 14 years of age discharged, and statements placed on file of all employed under 16 years of age.
- No. 325.—Ordered statements placed on file with names and ages of all employed under 16 years, and guard around pulley and balance wheel on engine shaft in shingle mill.

No. 326.—Ordered guards around fly wheel on engine shaft, and also for equalizer saw.

No. 328.—Ordered guards for shafts on planers.

No. 333.—Guard for rip saw required.

No. 338.—Ordered rip saw guarded.

No. 352.—Exhaust fan ordered.

No. 354.—Ordered planer, countershafts and rip saw guarded.

No. 356.—Required rip saw guarded.

No. 359.—Ordered hoisting shaft guarded and separate closets for females.

No. 360.—Handrails around and along two stairways ordered.

No. 361.—Ordered handrail on stairway; guard for rip saw, and shifters and loose pulleys on all machines not already provided with them.

No. 362.—Ordered guards around opening in floor and on saws as much as possible, and exhaust fan system extended to lathes on ground floor.

No. 364.—Required fire escape on rear of building.

No. 365.—Ordered rail extended along main belt; handrail around and along stairways, and shifters on all machines not provided with them.

No. 367.—Saw guard for rip saw in pattern shop ordered.

No. 369.—Guard around fly wheel ordered.

No. 372.—Ordered planer countershaft guarded.

No. 374.—Railing around main driving pulley ordered.

No. 377.—Handrail on stairway required.

No. 378.—Fire escape ordered.

No. 386.—Ordered pulley and tightener on main belt guarded, and registers kept of all children employed under the age of 16 years.

No. 388.—Automatic gates for elevator, and closets properly designated.

No. 389.—Ordered closets to be properly designated.

No. 391.—Guards for two rip saws on lower floor, and handrail on stairway ordered.

No. 396.—Ordered closets to be properly designated.

No. 398.—Separate closets for females ordered.

No. 399.—Ordered outside door at foot of stairway changed to swing outward; gates for elevator, and closets to be properly designated.

- No. 400.—Required closets properly designated.
- No. 401.—Required handrail on stairway, and separate closets for females.
- No. 403.—Exhaust fan to carry dust from sanding machine, and guards for rip saw and for elevator ordered.
- No. 404.—Ordered two rip saws guarded; handrail on stairway; guard for elevator; fire escapes on south end of building, and statements placed on file of all children employed under 16 years of age.
- No. 405.—Required handrails on stairways, and shifters where not already supplied.
- No. 408.—Ordered fire escape on Harrison street front of new building.
- No. 411.—Guard on rip saw required.
- No. 416.—Ordered shifters where not already provided, and guards to be placed on rip saw.

ACCIDENTS REPORTED DURING YEAR.

DISTRICT NO. 4.

[The number refers to the inspection number in table.]

- No. 2.—March 9, 1895. John Lamb, age 17, laborer, in the employ of Saginaw Basket Co., had two fingers injured on saw. Was disabled two weeks and firm paid wages in full during time disabled.
- No. 2.—March 30, 1895. Joseph Trombley, age 35, married, sawyer, employed by Saginaw Basket Co., had thumb and finger cut on saw. Was disabled three weeks and received wages in full during time disabled.
- No. 23.—April 22, 1895. Frank Mervelle, age 38, married, circular sawyer, in the employ of Wall & Webber, Saginaw, fell on saw and was killed. Burial expenses paid by family.
- No. 58.—September 7, 1895. George Solnay, age 28, single, stock cutter, employed by Saginaw Furniture Co., had four fingers on right hand cut off on saw. Was disabled six weeks. Did not receive wages during time disabled.
- No. 75.—April 1, 1895. Joseph LaBell, age 55, married, laborer, in the employ of A. D. Camp, Saginaw, lost one foot and toes of the other, will be crippled for life. Was disabled three months, and received no wages while disabled.
- No. 85.—May 20, 1895. Frank Carpenter, age 38, married, stave cutter, in the employ of E. A. Gyde, Saginaw, had ends of four fingers cut off. Was disabled four weeks. He received wages and doctor's bill while disabled.
- No. 86.—June 1, 1895. John Sheridan, age 30, married, was disabled three weeks by having the ends of two fingers cut off on saw. He was a sawyer in the employ of Thomas Tindle & Co., Saginaw. Doctor's bill paid by firm. Did not receive wages during time disabled.
- No. 100.—June 13, 1895. James Wyamt, age 45, married, machine hand, employed by Feige Desk Co., Saginaw, leg injured by belt breaking. Was disabled one month and received no wages during time disabled.
- No. 115.—July 8, 1895.—Joseph Bukowsky, age 17, in the employ of Edwin F. Rouse, Bay City, lost one finger and part of another by being caught in machinery through carelessness. Was disabled four weeks and did not receive wages while disabled.

- No. 127.—July 18, 1895. Frank Bassett, age 28, married, hand slipped on chopping knife, and split thumb, he was machine hand, employed for Russell Bros., West Bay City. Was disabled three weeks and received wages while disabled. Carried accidental insurance and received \$10 per week indemnity.
- No. 127.—July 18, 1895. George Kite, age 29, married, machine hand, employed by Russell Bros., West Bay City, while loading lumber caught hand and cut off one finger. Was disabled six weeks and received no wages during time disabled.
- No. 127.—July 18, 1895. John Barney, age 20, single, laborer, in the employ of Russell Bros., West Bay City, had one joint of forefinger cut off. Was disabled four weeks and received no wages while disabled.
- No. 129.—July 18, 1895. Thomas Casey, age 23, single, had one arm fractured while assisting to put belt on pulley. He was a laborer in the employ of Handy Bros., West Bay City. Was disabled two months.
- No. 130.—October 8, 1895. Daniel Darragh, age 15, laborer, employed by Crumps Manufacturing Co., West Bay City, was killed on elevator through carelessness. Burial expenses paid by parents.
- No. 130.—October 8, 1895. Joseph Sweet, age 30, married, foreman, in the employ of Crumps Manufacturing Co., West Bay City, had a finger cut off on nailing machine. Did not lose any time and firm paid doctor's bill.
- No. 144.—July 25, 1895. Fred Sommers, age 16, laborer in the employ of F. Wheeler & Co., West Bay City, was sitting on the track, when car ran over his hand, cutting it off at wrist. He was disabled three months and received wages during time disabled. The firm presented him with \$500.
- No. 145.—July 25, 1895. Paul Veroncha, age 17, lost three fingers on saw while employed as laborer for Ross, Bradley & Co., West Bay City. Was disabled six weeks. Did not receive wages while disabled.
- No. 151.—April 6, 1895. Eber Childs, aged 18, employed as laborer for Star Wood-ware Co., Standish, was caught on shaft and killed. Burial expenses paid by firm.
- No. 156.—July 1, 1895. George Ainsworth, age 36, married, boilermaker, in the employ of Wicks Bros., Saginaw, fell off boiler and fractured leg. Was disabled three months and received wages during time disabled. Firm paid doctor's bill, hospital fee and cared for family.
- No. 156.—July 1, 1895. Herman Fowle, age 35, married, laborer, employed by Wicks Bros., Saginaw, fell from car, was bruised and collar bone fractured. Was disabled six weeks and received pay during time disabled. Firm paid bills and cared for family.
- No. 191.—July 11, 1895. Frank Foote, age 32, married, was tightening bolt and wrench slipped off, his hand hit the saw, cutting off a thumb. Was disabled one month. Received no wages during time disabled.

- No. 191.—July 11, 1895. Louis Drain, age 23, married, machine hand, in the employ of Estey Manufacturing Co., Owosso, had thumb cut off. Was disabled 24 days.
- No. 191.—July 11, 1895. L. Ayres, age 21, single, machine hand, employed by Estey Manufacturing Co., Owosso, lost three fingers by neglecting to set saw gauge. Was disabled 35 days and received no wages while disabled.
- No. 214.—August 2, 1895. Albert Hanosky, age 25, married, piece flew from saw, hitting him in the face, crushing his nose. He was laborer in the employ of Smalleys & Woodworth, Bay City. Was disabled three weeks and received wages while disabled, and doctor's bill paid by firm.
- No. 231.—August 8, 1895. Herman Bucholtz, age 35, married, laborer, employed by G. N. Fletcher & Sons, Alpena, hand crushed. He received accident insurance from company, and one-half pay.
- No. 242.—August 9, 1895. Ole Peterson, age 40, married, lost one finger and was disabled 14 days. He was employed as pattern maker for Charles B. Warren, Alpena. Received no wages during time disabled.
- No. 277.—August 26, 1895. Phillip Meyer, age 40, married, laborer in the employ of Detroit Mill, Bay City, fell, and in the attempt to save himself caught his hand on a saw and cut off three fingers. Was disabled 5 weeks and received no wages while disabled.
- No. 282.—August 26, 1895. Will Senecal, age 17, laborer, employed by L. B. Dolson & Co., Bay City, lost one finger on saw. Was disabled 3 weeks; received wages and doctor's bill during time disabled.
- No. 289.—August 29, 1895. William Harten, age 20, single, laborer, lost three fingers on saw through carelessness; the boys were throwing chips at each other and he struck hand on saw. Was disabled 4 weeks and did not receive wages while disabled.
- No. 365.—September 24, 1895. John Hartell, age 45, married, fireman in the employ of Emery & Simpson, Saginaw, was killed by a boiler explosion. Burial expenses paid by firm.
- No. 365.—September 24, 1895. Ed. Hartman, age 40, married, fell in hot brine, badly scalding both feet. He was employed as laborer by Emery & Simpson, Saginaw. Was disabled 2 weeks; received wages and firm supported family while disabled.
- No. 366.—September 24, 1895. John Pierce, age 62, married, laborer, employed in Flint & Pere Marquette car shops, Saginaw, was wiping off saw and hand was caught and cut off. Did not receive wages during time disabled.

- No. 371.—October 1, 1895.] George Doane, aged 40, married, stove cutter in the employ of Liken & Bach, Unionville, lost four fingers. Was disabled 3 months and received wages while disabled. He also received \$100 from the employes by subscription.
- No. 385.—October 23, 1895. O. Brassner, age 20, single, machine hand employed by Linton Manufacturing Co., Saginaw, had part of one finger cut off. Was disabled 2 weeks; received wages during time disabled. Doctor's bill from insurance company.
- No. 403.—November 2, 1895. William H. Smith, age 35, married, employed as blacksmith at Flint Wagon Works, Flint, lost one eye by a piece of steel flying from the anvil and striking him in the eye. Was disabled 4 weeks and received no wages during time disabled.
- No. 405.—November 6, 1895. Louis Wardwell, age 22, single, machine hand in the employ of Owosso Manufacturing Co., lost one eye. Was disabled 6 weeks, and did not receive wages while disabled.
- No. 405.—November 6, 1895. Charles Hahn, age 40, married, belt repairer, employed for Owosso Manufacturing Co., had one arm bruised by having it caught in gearing. Was disabled 30 days, and received no wages during time disabled.

FIFTH DISTRICT.

SUMMARY OF WORK IN FIFTH INSPECTION DISTRICT.

OFFICE OF DEPUTY INSPECTOR, }
Alma, December 24, 1895.

HON. C. H. MORSE,

Commissioner of Labor, Lansing, Mich.:

• DEAR SIR—In response to your letter of November 30, 1895, I have the honor to report to you as follows:

Since my appointment, June 12, 1895, I have visited three hundred and twenty-eight factories, and revisited seven. The work being so badly scattered and so many places idle, it has not seemed best to revisit any more. I have found but little child labor employed and upon the proprietors' attention being called to the law, I have had no difficulty in having the children under fourteen years of age discharged. I enclose filled blank giving orders issued and compliances with same.

I have no means of knowing the total number of orders given in this district by my predecessors, but find many improvements made under their direction and believe their orders to have been very generally complied with. The orders of Mr. Hintz for gates at elevator openings at Elk Rapids Chemical Works and D. M. Ferry Seed Sorting Establishment at Charlevoix have not been complied with for the reason that both places have not been in operation the past year. Orders given by me to Forman & Curtis at Petoskey and N. B. Keeney & Sons at Traverse City for automatic gates for elevators have not been complied with, but I think will be soon.

Very much of my district in the upper peninsula had not been visited by an inspector. I am pleased to say that I found a very general desire there on the part of manufacturers to comply with the law when made acquainted with its object.

Yours very respectfully,

T. A. ELY,

Deputy Inspector.

Table showing factory inspection in fifth district since June 12, 1895.

Kinds of changes ordered.	No. of changes ordered.	No. of orders complied with.
Complete system of dust arresters.....	1	1
Automatic gates for elevators.....	4	3
Separate closets.....	3	3
Blowers for sanders.....	3	3
Children under 14 discharged from factories.....	11	11
Registers ordered kept.....	13	13
Machinery and belts ordered guarded.....	17	17
Handrails for stairs.....	9	9
Totals.....	60	55

Whole number of factories inspected..... 328

Whole number of factories revisited..... 7

NOTE.—District No. 5 was not organized until June 12, 1895. This accounts for the seeming incompleteness of this report. The inspection for 1893-4 was made by other inspectors, the work being in their reports.

Inspection book No. 1.

TABLE No. 5.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
1	June 17	Bannister	C. E. Bradford & Bros.	Staves and heading	idle	
2	" 17	Ashley	Salliotte & Chittenden	Hoops, staves, etc.	run.	full
3	" 18	Middleton	Middleton Cooperage Co.	Staves, head'g & barrels	"	part
4	" 18	Carson City	Bradford Bros.	Staves and heading	"	full
5	" 19	Greenville	R. J. Tower	Saw mill machinery	"	"
6	" 19	"	H. N. Anderson & Sons	Dressed lumber	"	"
7	" 20	"	Ranney Refrigerator Co.	Refrigerators	"	"
8	" 20	"	Greenville Implement Co.	Plows, cultivators, etc.	"	"
9	" 20	"	Cowan & Booth	Sash, doors and blinds	"	part
10	" 21	Howard City	Skinner & Steenman	Furniture	run.	full
11	" 21	"	Henry Hinkle	Lumber and shingles	idle	
12	" 22	Lake View	Stebbins Mfg Co.	Furniture and novelties	run.	full
13	" 22	"	A. McAfee	Staves and heading	"	"
14	" 22	"	Macomber & Ball	Lumber, lath & shingles	"	"
15	" 24	Stanton	Stanton Novelty Works	Plows and rollers	"	"
16	" 24	"	C. H. Thompson	Lumber and hoops	"	"
17	" 25	Six Lakes	A. H. McDonald	Lumber and shingles	"	"
18	" 26	Hughes	F. W. Hughes	"	"	"
19	" 26	Winchester	Meocosta Lumber Co.	Lumber and lath	"	"
20	" 26	Baryton	Plato, Benwick & Co.	"	"	"
21	" 26	Horr	B. J. Shourds	Lumber and shingles	"	"
22	" 27	Weidman	John S. Weidman	Lumber, lath & shingles	"	"
23	" 27	"	Adams & Ackar	Shingles	"	"
24	" 27	Bundy	Gale Lumber Co.	Lumber, lath & shingles	"	"
25	" 28	Horsehead L'e	George Collin Co.	"	"	"
26	" 28	Maynard's Cr.	L. C. Beghold	Lumber	"	"
27	" 28	Chipp'wa L'ke	John D. Williams	"	"	"
28	July 1	Clare	A. S. Rhodes Saw Mill	Shingles	"	"
29	" 1	"	Lester & Ort Saw Mill	Lumber	idle	
30	" 1	"	Clare Woodenware Co.	Pails and tubs	run.	full
31	" 1	"	John Sexsmith	Lumber	idle	
32	" 2	Harrison	W. H. Nelson & Son	"	run.	full
33	" 3	Mt. Pleasant	Chippewa Stave Co.	Staves	"	"
34	" 3	"	Harning & Son	Lumber and heading	"	"
35	" 3	"	Mt. Pleasant Lumber Co.	Lumber	"	"
36	" 3	"	I. N. Shepherd	Trunk slats and lumber	"	"
37	" 5	Shepherd	Shepherd Stave and Heading W'ks	Staves and heading	"	part
38	" 5	"	Mt. Pleasant Foundry & Plow Co.	Plows and rollers	"	full
39	" 5	"	A. W. Dodge Clothespin Mfg Co.	Clothespins	"	"
40	" 6	Mt. Pleasant	The Graham Bros. Basket Factory	Baskets and trunk slats	"	"
41	" 6	"	L. Shafer	Shingles	"	"
42	" 11	S'tt Ste. Marie	Gray Shingle Co.	"	idle	
43	" 11	"	Soo Mill Lumber Co.	Lumber	run.	full
44	" 11	"	C. E. Ainsworth	Lumber and lath	"	"
45	" 12	Bay Mills	Niagara Paper Co.	Wood pulp	"	"
46	" 12	"	The Hall & Munson Co.	Lumber, sash, doors, etc.	"	"
47	" 13	S'tt Ste. Marie	James W. McTavish	Cigars	"	"
48	" 13	"	Edison Soo Electric Light Co.	Electric light	"	"
49	" 13	"	J. B. Sweatt	Sash and doors	"	"
50	" 13	"	Alfred Lanson	Lumber	idle	

District No. 5.

T. A. Ely, Deputy Inspector.

No. given factory for 1886.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
1	60	60	82	75	75		9	yes	10	\$1,500	60					yes	no	yes	yes	yes	yes		
2	60	60	75	75	75				10	500	60												
3	60	30	40	12	12				10	500	60												
4	60	60	25	20	20		4	no	10	800	60												
5	60	60	10	10	10				10	450	60												
6	60	60	8	5	5				10	300	60												
7	60	60	135	135	135		1	yes	10	3,800	60	yes	yes	yes	yes						yes	yes	
8	60	60	25	20	20				10	1,000	60												
9	60	40	6	6	6				10	140	60			yes	yes						no		
10	60	60	140	140	140		3	yes	10	5,000	60										yes	yes	
11	60	60	14	15	15				10	400	60	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	
12	60	60	25	15	15				10	900	60												
13	60	60	45	35	35		2	yes	10	2,500	60												
14	66	66	60	60	60				10	150	60										no	yes	
15	60	60	6	6	6				10	150	60												
16	60	60	10	10	10				10	250	60									yes			
17	66	66	30	12	12				10	1,000	60									no	no		
18	66	66	75	20	20				10	400	60									yes			
19	66	66	40	40	40				10	1,500	60												
20	66	66	50	50	50				10	1,800	60			yes							no		
21	66	66	8	8	8				10	150	60												
22	66	66	125	125	125				10	3,500	60	yes		yes		yes	no						
23	66	66	14	13	13				10	450	60												
24	66	66	160	100	100				10	6,300	60			yes	yes					yes			
25	66	66	34	34	34				10	840	60									no			
26	60	60	14	14	14				10	350	60												
27	66	66	35	35	35				10	1,200	60												
28	60	60	9	9	9				10	285	60												
29	60	60	14	14	14				10	285	60												
30	60	60	50	48	2	4	yes		10	1,500	60	yes	yes	yes	yes	yes	no	yes	yes	no	yes	yes	
31	60	60	17	17	17				10	1,000	60					yes	no						
32	60	60	40	40	40				10	800	60												
33	60	60	32	32	32				10	600	60			yes									
34	60	60	30	15	15				10	1,400	60												
35	60	60	40	40	40				10	400	60												
36	60	60	30	30	30		5	no	10	400	60			yes						yes		yes	
37	60	30	40	20	20		1	yes	10	300	60	yes								no		yes	
38	60	60	8	8	8				10	300	60												
39	60	60	15	9	6				10	400	60			yes	yes						yes		yes
40	60	60	100	100	100		11	no	10	3,500	60												
41	60	60	10	10	10				10	800	60										no		
42	60	60	80	80	80				10	3,400	60	yes	yes	yes	yes	yes	no			yes	yes	yes	
43	60	60	75	75	75				10	3,000	60												
44	60	60	65	62	62				10	1,000	60												
45	60	66	35	35	35				10	1,000	60												
46	66	66	580	580	580		17	yes	10	12,000	50		yes										
47	48	48	9	6	3				10	850	60			yes	yes								
48	* * *	12	11	11	1				10	900	60												
49	60	60	50	18	18				10	730	60		yes										
50	60	60	12	12	12				10	730	60		yes										

* 168 hours; running all the time.

Inspection book No. 2.

TABLE No. 5.—CONTINUED.—

No. given factory for 1895.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
51	July 15	Dollarville	Dollarville Lumber Co.	Lumber, lath and pickets	run.	full
52	" 15	Newberry	Newberry Furnace Co.	Charcoal and pig iron	run.	full
53	" 15	Shilington	J. M. Clark	Shingles	"	"
54	" 15	Munising	Clark & Rowen	"	"	"
55	" 17	Marquette	Dead River Mill Co.	Shingles, lumber and lath	"	"
56	" 17	"	Bice Mfg Co.	Sash, doors, blinds, etc.	"	"
57	" 18	"	Lake Shore Iron Works	Mill & mining machinery	"	"
58	" 18	"	Dickerson Mfg Co.	Carriage trimmings	"	"
59	" 18	"	George L. Burds	Lumber and lath	"	"
60	" 19	"	Portage Entry Quarry Co.	Building stone	"	"
61	" 19	"	Lake Superior Carriage Works	Carriages and sleighs	"	part
62	" 19	"	Hanck & Deckermann	Cigars	"	full
63	" 20	Ishpeming	Jaedecke Bros.	"	"	"
64	" 20	Eagle Mills	F. W. Read & Co.	Lumber, sash and doors	"	"
65	" 22	Negaunee	Johnson Lumber Co.	Lumber	"	"
66	" 22	Michigamme	F. W. Read & Co.	Lumber, lath and shingles	"	"
67	" 26	L'Anse	L'Anse Lumber Co.	" " " "	"	"
68	" 22	Pegumaming	Chas. Hibbard & Son	Lumber and shingles	"	"
69	" 23	L'Anse	L'Anse Brown Stone Co.	Building stone	"	"
70	" 24	Baraga	John Funke	Lumber	"	"
71	" 24	"	Estate of Thos. Nester	Lumber, lath and shingles	"	"
72	" 25	Houghton	James Fryon & Sons	Lumber	"	"
73	" 25	"	Houghton Electric Light Co.	Electric light	"	"
74	" 25	Hancock	M. M. Morales	Lumber and shingles	"	"
75	" 25	"	Lake Superior Boiler Works	Boilers	"	"
76	" 26	Chassell	Sturgeon River Lumber Co.	Lumber, lath and shingles	"	"
77	" 26	"	Cory Shingle Co.	Shingles	"	"
78	" 26	Hancock	C. J. Hodge Lake Superior P'n W'ks	Mining machinery	"	"
79	" 26	"	Portage L'ke Fou'ry & Mach. W'ks	"	"	"
80	" 27	Gregoryville	Joseph Gregorio	Lumber, sash and doors	"	part
81	" 27	Laurium	N. S. Bray Planing Mill	Dressed lumber	"	full
82	" 28	Sidnaw	Corbin & Mead	"	"	"
83	" 29	"	J. H. Booth & Co.	Lumber and lath	"	"
84	" 30	Ontonagon	Diamond Match Co.	Lumber and boxes	"	"
85	Aug. 1	Hubbell's Mill	J. Hubbell	Lumber	idle	"
86	" 1	Crystal Lake	E. C. Shaw	"	run.	full
87	" 1	Keaton	Sparrow-Krall Lumber Co.	Lumber, lath and shingles	"	"
88	" 2	Ewen	Ewen Planing Mill Co.	Dressed lumber, etc.	"	"
89	" 2	"	John McRae & Co.	Shingles and heading	"	"
90	" 2	"	Clark, Farnam & Co.	Shingles and lumber	"	"
91	" 2	"	Phoenix Lumber Co.	Lath, shingles and lumber	"	"
92	" 2	Trout Creek	Trout Creek Lumber Co.	Lath and shingles	"	"
93	" 3	Fowls Siding	J. C. Fowl	Staves and heading	"	"
94	" 3	Ironwood	Chas. H. Kneels	Heading	"	"
95	" 3	"	Gogebie Hardwood Lumber Co.	Shingles, boxes, etc.	"	"
96	" 5	Bessemer	Bessemer Mfg Co.	Heading	"	"
97	" 6	Choate	Oakkrush Lumber Co.	Lumber, lath and shingles	"	"
98	" 6	Interior	Interior Lumber Co.	" " " "	"	"
99	" 6	Crosier	Kern & Woodman	" " " "	"	"
100	" 6	Robbins	Brown & Robbins	" " " "	"	part

District No. 5.

T. A. Ely, Deputy Inspector.

No. given factory for 1885.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 18 employed.	Are registers kept and statements filed of children employed under 18 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
51	60	60	135	135					10	\$6,500	60	yes		yes		yes	no	yes	yes	yes	yes		
52	60	60	350						16	450	60	yes				yes	no		yes	no			
53	60	60	13	13					10	425	60												
54	60	60	12	12					10	7,500	60		yes	yes				yes		yes	yes		
55	60	60	175	175					10		60												
56	60	60	65	65			8	yes	10	2,000	60												
57	60	60	40	40					10	2,800	140												
58	60	60	10	9			3	no	10	170	60												
59	60	60	65	65					10	2,500	60												
60	60	60	45	45					10	1,500	60												
61	60	54	18	7					10	175	60												
62	48	48	8	8					10	300	140											yes	
63	48	48	14	14			1	yes	8	450	60												
64	60	60	50	50					10	2,500	60	yes		yes				yes	yes	yes	yes		
65	60	60	30	30					10	1,000	60												
66	60	60	100						10	3,000	60												
67	63	63	70	70					10	2,700	60												
68	60	60	225	225			8	yes	10	9,500	60												
69	60	60	35	35					10	1,500	60												
70	63	63	55	55					10	2,600	60					yes	no	yes		yes	yes		
71	66	66	200	200					10	7,000	60			yes									
72	60	60	15	15					10	800	60												
73	60	60	8	8					10	400	60												
74	60	60	45	45					10	2,000	60										no		
75	58	58	14	14					10	700	60												
76	66	66	100	100			3	yes	10	4,800	60			yes				yes	yes	yes	yes		
77	66	66	15	15					10	725	60									no			
78	60	60	90	90					10	3,500	60									yes			
79	60	60	35	35					10	2,200	60												
80	60	60	60	9			2	no	10	370	60			yes									
81	58	58	43	43					10	1,400	60												
82	60	60	15	10					10	600	60												
83	60	66	58	58					10	2,500	60			yes				no		no			
84	60	60	450	450			3	no	10	21,000	60							yes		yes			
85	60		12																				
86	60	60	16	16					10	600	60	yes				yes	no	yes	yes	no	yes		
87	66	66	75	75					10	3,500	45			yes									
88	66	66	15	15					10	600	60												
89	66	66	30	30			4	no	10	1,100	60												
90	66	66	60	60					10	2,500	60												
91	63	63	120	120					10	3,900	60			yes									
92	66	66	225	225					10	7,000	60												
93	60	60	10	10					10	450	60												
94	60	60	15	15			10	no	10	225	60										no		
95	60	60	20	20			4		10	500	60			yes						no	yes		
96	60	60	30	30			2	13	10	700	60												
97	66	66	180	180					10	9,000	60			yes									
98	66	66	200	200					10	12,000	60												
99	66	66	90	90					10	8,700	45												
100	60	60	75	10					10	500	60		no										

* 168 hours; when running does not shut down.

† Permit given by inspector.

Inspection book No. 3.

TABLE No. 5.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
101	Aug. 7	Atkinson	Metropolitan Lumber Co.	Lumber, lath and shingles	run.	full
102	" 9	Sagola	Sagola Lumber Co.	" " " "	"	"
103	" 10	Menominee	Ludwig's, Wells & Van Schalk Co.	Lumber and shingles	"	"
104	" 10	"	The Kirby Carpenter Co.	" " " "	"	"
105	" 12	"	Ramsey & Jones	Lumber	"	"
106	" 13	"	Menominee Saw Mill Co.	Lumber and shingles	"	"
107	" 12	"	Menominee Bay Shore Lumber Co.	" " " "	"	"
108	" 12	"	Girard Lumber Co.	" " " "	"	"
109	" 12	"	A. Spies	" " " "	"	"
110	" 13	"	Donovan & O'Conner	" " " "	"	"
111	" 13	"	Blodgett & Davis	" " " "	"	"
112	" 13	"	Menominee River Shingle Co.	Shingles	"	"
113	" 13	"	Harding Bros.	"	"	"
114	" 13	"	Menominee Sash and Door Co.	Sash, doors & office furn.	"	"
115	" 14	"	Crawford Mfg Co.	Boxes	"	"
116	" 14	"	A. W. Clark & Co.	Match blocks & shingles	"	"
117	" 14	"	Menominee Iron Works	Mill and min'g machinery	"	"
118	" 14	"	Menominee Boiler Works	Boilers and sheet iron	"	"
119	" 14	"	Hubbard Saw and Tool Co.	Saws, etc.	"	"
120	" 14	"	Menominee Elec. Mechanical Co.	Electrical goods	"	"
121	" 15	Ingalls	Ira Carley	Lumber and shingles	"	"
122	" 15	Daggett	Wilson Bros.	Lumber	"	"
123	" 15	Talbot	Lilly Lumber Co.	Lumber and shingles	"	"
124	" 16	Escanaba	Escanaba Steam Laundry	Laundry work	"	"
125	" 16	"	The I. Stephenson Co.	Dressed lumber	"	"
126	" 16	"	Ewing Bros.	Boilers & sheet iron tanks	"	"
127	" 16	"	Escanaba Iron Works	Mill and mining machin'y	"	"
128	" 16	"	Henry's Wagon Works	Wagons, carriages, etc.	"	"
129	" 16	"	Escanaba Lighting Co.	Electric lights	"	"
130	" 17	Ford River	Ford River Lumber Co.	Lumber, lath and shingles	"	"
131	" 17	Wells	The I. Stephenson Co.	" " " "	"	"
132	" 17	Gladstone	Davis & Mason	" " " "	"	"
133	" 17	"	Buckeye Stave Co.	Hoops, head'g, staves, etc.	"	"
134	" 17	"	Gladstone Washboard Co.	Washboards	"	"
135	" 19	"	Gladstone Electric Light Co.	Electric light	"	"
136	" 19	Masonville	Nangle, Halcomb & Co.	Shingles, pav. blocks, etc.	"	"
137	" 19	Garth	Garth Lumber Co.	Lumber, lath and shingles	"	"
138	" 19	Rapid River	Fred W. Gray & Co.	Shingles, posts and ties	"	"
139	" 20	Cook's Mills	Cook's Mills	Lumber	idle	"
140	" 20	Manistique	The White Marble Lime Co.	Lime and crushed stone	run.	full
141	" 21	"	Hall & Buell	Lumber, lath, etc.	"	"
142	" 21	Thompson	Delta Lumber Co.	" " " "	"	"
143	" 23	Manistique	Chicago Lumber Co.	" " " "	"	"
144	" 23	White Dale	Robert Beeson	Shingles	idle	"
145	" 23	Hunt's Spur	Michigan Cedar Co.	Lumber and shingles	run.	full
146	" 23	St. Ignace	Jennison Lumber Co.	Lumber and lath	"	"
147	" 27	Alma	Alma Roller Mills	Flour and feed	"	"
148	" 27	"	Alma Woolen Mills	Cloth and yarn	"	"
149	" 27	"	J. M. Montigel & Co.	Machinery and castings	"	"
150	" 27	"	Alma Table Factory	Tables	idle	"

THIRD ANNUAL REPORT.

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District No. 5.

T. A. Ely, Deputy Inspector.

No. given factory for 1886.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 16 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
101	60	60	200	200						30,800	60	yes		yes		yes	no	yes	yes	yes	yes	yes	
102	60	60	70	70					10	2,900	60	yes							yes	yes	yes	yes	
103	60	60	350	350					10	15,000	60												
104	60	60	500	500					10	25,000	60												
105	60	60	75	75					10	2,800	60												
106	60	60	95	95					10	2,200	60												
107	60	60	110	110					10	5,000	60												
108	60	60	125	125					10	5,000	60												
109	60	60	75	75					10	8,000	60												
110	60	60	100	100					10	4,500	60												
111	60	60	150	150					10	+	60												
112	60	60	50	50			1	no	10	2,000	60										no		
113	60	60	18	18					10	800	60												
114	60	60	30	30			1	no	10	1,200	60												
115	60	60	40	40					10	900	60										yes		
116	60	60	95	95		2	8	no	10	2,500	60												
117	60	60	25	25					10	1,500	60										no		
118	60	60	25	15					10	750	60												
119	60	60	15	15					10	700	60			yes									
120	60	60	20	12					10	650	60												
121	60	60	54	54					10	2,200	60										yes		
122	60	60	20	20					10	700	60										no		
123	60	60	40	40					10	1,700	60										yes		
124	60	60	7	7		4			10	280	60										no		yes
125	60	60	9	9					10	450	60												
126	60	60	5	2					10	210	60												
127	60	60	17	13					10	600	60								yes				
128	60	60	7	3					10	250	60												
129	60	60	6	6					10	300	60									yes			
130	60	60	420	330					10	11,000	60										yes		
131	60	60	160	160					10	5,000	60			yes									
132	60	60	100	100					10	4,000	60								no		no	no	
133	60	60	75	60			10	no	10	2,000	60			no				yes	no	yes	yes	yes	
134	60	60	25	25					10	700	60			yes				yes	yes	yes	no		
135	70	70	8	3					10	+	60										no		
136	66	66	100	190			8	no	10	2,500	60										yes		
137	66	66	180	160					10	6,800	60												
138	66	66	100	100					10	+	60												
139	60	60	10																				
140	66	66	45	45					10	1,400	60	yes		yes		yes	no	no	yes	no	yes	yes	
141	60	60	170	150					10	6,900	60								yes		yes		
142	60	60	420	420					10	13,000	60												
143	66	66	1200	1065					10	27,000	60												
144	60	60																					
145	60	60	120	120					10	+	60	yes		yes		yes	no	yes	yes	no	yes		
146	60	60	40	40					10	+	60												
147	60	60	24	16					10	880	60										yes		
148	60	60	7	2					10	250	60										no		yes
149	60	60	12	6					10	300	60										yes		
150	60	60	35																				

* 120 hours; running night and day.
† 72 hours; running overtime.

‡ Did not report.

Inspection book No. 4.

TABLE No. 5.—CONTINUED.—

No. given factory for 1886.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold?	Running or idle?	If running, is it full or part time?
151	Sept. 3	Alma	Tinker & Lancashire	Sash, doors and blinds	run.	full
152	" 3	"	Alma Excelsior Works	Excelsior	idle	"
153	" 3	"	Butterfield & Co.	Timber and shingles	run.	part
154	" 4	St. Louis	Smith, Clegg & Co.	Staves and heading	"	"
155	" 4	"	St. Louis Hoop and Stave Co.	Hoops	"	full
156	" 4	"	T. W. Whitney	Carriage hubs	"	"
157	" 4	"	St. Louis Independent	Printed matter	"	"
158	" 4	"	St. Louis Milling Co.	Flour and feed	"	"
159	" 4	"	St. Louis Republican Leader	Printed matter	"	"
160	" 5	North Star	Sandusky Cooperage & Lumber Co.	Staves and heading	"	"
161	" 5	"	North Star Brick and Tile Yards	Brick and tile	"	"
162	" 6	Vestaburg	J. W. Robinson	Lumber and shingles	idle	"
163	" 6	Riverdale	Gardner & Peterman	Staves and heading	run.	full
164	" 6	"	J. B. Adams	Lumber	idle	"
165	" 7	Wheeler	Liken, Brown & Co.	Staves and heading	run.	full
166	" 7	Brooklynridge	Gardner & Peterman	" " "	"	"
167	" 9	Morley	A. W. Dodge & Co.	Clothes pins	"	"
168	" 9	"	Snyder & Strope	Lumber and shingles	idle	"
169	" 10	Stanwood	Turner & Roaks	Lumber and feed	run.	part
170	" 10	"	G. W. Reed	Shingles	idle	"
171	" 10	"	G. W. Reed	Charcoal	run.	full
172	" 11	Potoskey	W. L. McManus	Lumber & b'ld'g material	"	"
173	" 11	"	Potoskey Iron Works	Machinery	"	"
174	" 11	"	White Swan Steam Laundry	Laundry work	"	"
175	" 11	"	Barnett Foundry & Machine W'ks.	Machinery	"	"
176	" 12	"	Potoskey Furniture Co.	Furniture	"	"
177	" 12	"	W. A. Blakely	Dressed lumber	"	"
178	" 12	"	Forman & Curtis	Maple flooring	"	"
179	" 12	"	Bull, Banerle & Jones	Woodenware	"	"
180	" 12	"	L. G. Grimes	Brick	"	"
181	" 12	"	Potoskey Record	Printed matter	"	"
182	" 12	"	Potoskey Independent Democrat	"	"	"
183	" 12	"	W. W. Rice Leather Co.	Sole leather	"	"
184	" 12	"	Birkett Bros.	Woodenware and chairs	"	"
185	" 12	"	Winsor Woodenware Co.	Woodenware	idle	"
186	" 12	"	James Buckley	Broom handles	"	"
187	" 14	"	Cable Mills	Flour and feed	run.	full
188	" 14	"	Edison-Potoskey Electric Light Co.	Electric light	"	"
189	" 14	H'b'r Springs	Thomas Kneal	Lumber, lath and shingles	"	"
190	" 14	"	A. G. Williams	Woodenware	idle	"
191	" 14	"	E. Shay & Son	Machinery	run.	full
192	" 14	"	Corey Hoop Co.	Hoops	"	"
193	" 16	Levering	Walker Bros.	Broom handles	"	part
194	" 16	"	M. Palmer	Lumber and handles	idle	"
195	" 16	Brutus	Hinkley Bros.	Staves	run.	full
196	" 17	Alanson	L. C. Whittier	Shingles	idle	"
197	" 17	"	Alanson M'g Co.	Lumber and veneer stock	run.	full
198	" 17	"	Gen. Sinclair Co.	Lumber, shingles, etc.	"	"
199	" 17	"	DeForrest & Co.	Wooden bowl factory	"	"
200	" 18	Conway	Austin & Thompson	Shingles	"	"

District No. 5.

T. A. Ely, Deputy Inspector.

No. given factory for 1906.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or alide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shutters used in throwing balls, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
151	60	60	28	15					10	\$500	60	yes		yes		yes	no	yes	yes	yes	yes	yes	
152	60	60	10						10	240	60	yes		yes		yes	no	yes	yes	no	yes	yes	
153	60	30	15	8					10	1,000	60					yes		yes	yes	yes	yes	yes	
154	60	50	55	16					10	1,850	60								yes	yes	no	yes	
155	60	60	60	60			2	yes	10		60								yes	yes	yes	yes	
156	60	60	10	10					10	240	60												
157	60	60	6	6					10	200	60								no				
158	72	72	6	4					10	340	60								yes				
159	60	60	4	3					10	125	60												
160	60	60	55	30			4		10	1,300	60										yes		
161	60	60	10	8					10	200	60								no		no		
162	60	11							10		60												
163	60	60	46	46			2	yes	10	1,700	60	yes		yes		yes	no	yes	yes	yes	yes	yes	
164	60	21							10	700	60	yes		yes		yes	no	yes	yes	yes	yes	yes	
165	60	34	10						10		60							yes	yes	yes	yes	yes	
166	60	60	37	37			1	yes	10	1,200	60												
167	60	60	14	8	6				10	860	60				yes								yes
168	60	10							10		60												
169	60	20	10	3					10	75	60	yes		yes		yes	no	no	yes	no	no	no	
170	60	11																					
171	60	60	40	30					10	800	60	yes				yes	no		yes	yes	yes	no	
172	60	60	45	45					10	1,650	60			yes				yes	yes	yes	yes	yes	
173	60	60	6	4					10	200	60									no		yes	
174	60	60	40	2	18				10	200	60				yes								yes
175	60	60	8	4					10	225	60												
176	60	60	80	11					10	400	60										yes		
177	60	60	7	7					10	200	60												
178	60	60	50	50					10	1,500	60		no										
179	60	60	15	10					10	250	60										no		
180	60	60	12	12					10	400	60							no					
181	60	60	6	4					10	125	60							yes					
182	60	60	15	6	3				10		60				yes								yes
183	60	60	34	34					10	1,500	60												
184	60	60	12	6					10	200	60												
185	60	20																					
186	60	60	20						10		60	yes	yes	yes	yes	yes	no	yes	yes	no	yes		
187	60	60	4	4					10	150	60							yes	yes				
188	60	60	4	4					10		60												
189	60	60	24	13					10	600	60										yes		
190	60	8																					
191	60	60	7	4					10	150	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
192	60	60	25	25					10	200	60												
193	60	30	12	12					10	200	60												
194	60	18																					
195	60	60	12	12					10	400	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
196	60	9																					
197	60	60	16						10	550	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
198	60	60	14	14			1	no	10	320	60									no			
199	60	60	10	8					10	220	60												
200	60	60	30	16					10	600	60												

* Did not report.

Inspection book No. 5.

TABLE No. 5.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
201	Sept. 18	Conway	McFarlan Bros.	Lumber	run.	full
202	" 18	Clarion	Buckley & Peterson	Handles and chair stock	idle	"
203	" 18	Boyne Falls	Wm. Mears	"	"	"
204	" 18	"	W. H. White & Co.	Lumber	run.	full
205	" 19	Boyne City	W. H. White & Co.	"	run.	full
206	" 19	"	Boyne City Lumber Co.	"	idle	"
207	" 19	Advance	Godfrey Van Platen	"	run.	full
208	" 19	Boyne City	A. Boyne	"	run.	full
209	" 19	Alba	Alba Handle Co.	Broom handles	idle	part
210	" 19	"	Gould & Ailing	Stoves	"	"
211	" 20	"	Antrim Iron Co.	Charcoal	run.	full
212	" 20	Elmira	V. L. Parsons & Co.	Lumber, staves & head'g.	"	"
213	" 20	"	Harvey Schuyler	Hoops	idle	"
214	" 20	"	Antrim Iron Co.	Charcoal	run.	full
215	" 20	Mancelona	Mancelona Hoop Co.	Veneer stock	"	part
216	" 20	"	Wilcox & Zipp	Lumber	"	"
217	" 21	"	Mancelona Handle Co.	Broom handles	"	full
218	" 21	"	Mancelona M'g Co.	Building material	"	"
219	" 21	"	C. F. Achley	Lumber	idle	"
220	" 21	"	Antrim Chemical Co.	Chemicals	run.	full
221	" 21	"	Antrim Iron Co.	Pig iron	"	"
222	" 22	Leetsville	Antrim Iron Co.	Charcoal	"	"
223	" 22	Kalkaska	Smith Lumber Co.	Lumber	idle	"
224	" 23	"	Soper & Terry	"	"	"
225	" 23	"	Freeman M'g Co.	Woodenware	run.	full
226	" 23	S. Boardman	Utter & Clover	Lumber	idle	"
227	" 23	"	Michigan Handle Works	Woodenware	run.	full
228	" 23	"	George I. Quineby	Lumber	"	"
229	" 24	Fife Lake	G. T. Fox	Staves	idle	"
230	" 24	"	W. L. Talbert	Broom handles	"	"
231	" 24	"	Todd & Green	Wooden bowls	"	"
232	Oct. 2	Big Rapids	Crescent Furniture M'g Co.	Sideboards & book cases	run.	full
233	" 2	"	Big Rapids Door & Blind M'g Co.	Sash, doors and blinds	"	"
234	" 2	"	Trowbridge Bros.	Hoops	"	"
235	" 2	"	Jones & Green	Building material	"	"
236	" 3	"	Hood & Wright	Veneer lumber	idle	"
237	" 3	"	C. D. Minning	Lumber	run.	full
238	" 3	"	City Steam Laundry	Laundry work	"	"
239	" 3	"	Falcon M'g Co.	Furniture	"	"
240	" 3	"	Big Rapids Furniture Co.	"	"	"
241	" 3	"	C. F. R. North	Barrels	idle	"
242	" 4	"	Eagle Planing Mill	Dressed lumber	run.	full
243	" 4	"	J. Hanchett & Bros.	Saw swages and repairs	"	"
244	" 4	"	Darrah Bros. & Co.	Flour and feed	"	"
245	" 4	"	Wm. E. Donley	Electric light	"	"
246	" 4	"	D. C. Crawford	Lumber	idle	"
247	" 5	"	C. B. Skillings	"	"	"
248	" 5	"	Michigan Cigar Co.	Cigars	run.	full
249	" 5	"	Big Rapids Pioneer	Printed matter	"	"
250	" 5	"	Herald & Bulletin	"	"	"

District No. 5.

T. A. Ely, Deputy Inspector.

No. given factory for 1896.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 31 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and wall holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or aside?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shutters used in throwing belts, and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
201	60	60	6	5					10	\$125	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
202	60	60	40						10										yes	yes	no		
203	60	60	10						10														
204	60	60	15						10														
205	60	60	40	40					10	1,560	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
206	60	60	25						10														
207	60	60	25	25					10	900	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
208	60	60	10	10					10	150	60								yes	yes	no	yes	
209	60	60	40	10					10														
210	60	60	40	40					10														
211	60	60	9	9					10	280	60	yes	yes	yes	yes	yes	no		no	yes	no	yes	
212	60	60	53	23			2	yes	10	1,000	60	yes	yes	yes	yes	yes			yes		yes		
213	60	60	10	9					10										yes				
214	60	60	9	9					10	280	60	yes	yes	yes	yes	yes	no		no	yes	no	yes	
215	60	40	18	18					10	400	60								yes		no	yes	
216	60	60	10	10					10	200	60								no				
217	60	60	45	45					10	2,500	60								yes		yes		
218	60	60	25	8					10	280	60												
219	60	60	5						10														
220	60	60	10	10					10	400	60	yes	yes	yes	yes	yes	no		no	yes	no	yes	
221	60	60	70	70					10	4,500	60												
222	60	60	9	9					10	280	60												
223	60	60	35						10														
224	60	60	18						10														
225	60	60	85	74	11				10	3,000	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	yes
226	60	60	21						10														
227	60	60	40	36	10		2	yes	10	1,000	60	yes	yes	yes	yes	yes	no		no	yes	no	yes	yes
228	60	60	23	22					10	800	60								yes				
229	60	60	30						10														
230	60	60	20						10														
231	60	60	7						10														
232	60	60	100	60					10	2,000	60	yes	no	yes	yes	yes	no		yes	yes	yes	yes	
233	60	60	70	70					10	2,000	60		yes	yes					yes	yes	no	yes	
234	60	60	50	50					10	1,600	60												
235	60	60	15	15					10	325	60										yes		
236	60	60	40						10														
237	60	60	20	20					10	780	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
238	60	60	7	2	4				10	150	60								yes	yes		yes	yes
239	60	60	130	120			2	yes	10	3,000	60		no								yes		yes
240	60	60	85	85					10	1,500	60												
241	60	60	20						10														
242	60	60	6	2					10	70	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
243	60	60	6	6					10	80	60												
244	60	60	8	8					10	450	60										yes		
245	60	60	4	4					10	175	60										no		
246	60	60	10						10														
247	60	60	10						10														
248	48	48	7	5	3				8	280	60	yes	yes	yes	yes	yes	no		no	yes	no	yes	yes
249	60	60	8	5	5				10	235	60								yes				
250	60	60	6	4	2				10	300	60												

* 168 hours; running all the time.
† 65 hours; running overtime.

Inspection book No. 6.

TABLE No. 5.—CONTINUED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
251	Oct. 7	Farwell	Williams Stave and Heading Co.	Staves and heading	run.	full
252	" 7	"	J. L. Littlefield	Lumber and lath	"	"
253	" 7	"	Geo. Graham	Cant hook handles	idle	"
254	" 7	"	M. F. Robinson	Shingles	"	"
255	" 7	"	A. J. Gardner & Co.	"	"	"
256	" 8	Evart	Champion Tool and Handle W'ks.	Logging tools	run.	full
257	" 8	"	Evart Cedar Co.	Shingles	"	"
258	" 8	"	C. D. Angvine	"	idle	"
259	" 8	"	Shores Bros.	Lumber	"	"
260	" 8	"	Chas. A. Waffie	Wooden bowls	"	"
261	" 8	"	Bellanger Tool Co.	Logging tools	"	"
262	" 9	"	C. E. Penton	Staves and heading	"	"
263	" 9	Reed City	Reed City Woolen Mills	Woolen cloth and yarn	run.	full
264	" 9	"	Benjamin Machinery Co.	Wood work'g machinery	"	"
265	" 9	"	Amos Rosenberg & Son	Lumber	"	"
266	" 9	"	Lowell Mfg Co.	Heading	"	part
267	" 10	"	Welsh Mfg Co.	Dressed lumber	"	full
268	" 10	"	Wm. Horner	Maple flooring	"	"
269	" 10	"	D. F. Lewis & Co.	Wooden bowls	"	"
270	" 10	"	Wenzel Bros.	Shingles	idle	"
271	" 10	"	W. B. Miller	"	"	"
272	" 11	Lake City	Louis Sands	Lumber, lath and shingles	run.	full
273	" 11	"	Edward Lapham	Lumber	idle	"
274	" 12	Clarence	Clarence Lumber Co.	"	run.	full
275	" 14	Ithaca	C. W. Althouse	Staves and heading	"	"
276	" 14	"	W. F. Thompson	Butter tubs	"	"
277	" 14	"	Ithaca Milling Co.	Flour and feed	"	"
278	" 14	"	St. Johns Mfg Co.	Lumber	idle	"
279	" 18	Traverse City	Caldwell & London	Wagons and sleighs	run.	full
280	" 18	"	N. B. Keeney & Son	Sorted seeds	"	"
281	" 18	"	Traverse City Elect. L't & Water Co.	Electric lights	"	"
282	" 18	"	Traverse City Lumber Co.	Lumber	idle	"
283	" 18	"	Smith Bros.	Dressed lumber	run.	full
284	" 18	"	Grand Traverse Herald	Printed matter	"	"
285	" 19	"	J. E. Gredlick Co.	Building material	"	"
286	" 19	"	Fulghum Mfg Co.	Maple flooring and tables	"	"
287	" 19	"	Wells, Higman Co.	Baskets & fruit packages	"	"
288	" 19	"	A. W. Walt Mfg Co.	Interior finish	"	"
289	" 19	"	Star Steam Laundry	Laundry work	"	"
290	" 19	"	Gredlick Bros.	Lumber	idle	"
291	" 21	"	The Oval Wood Dish Co.	Lumber and woodenware	run.	full
292	" 21	"	Wm. Beltner	Lumber and chair stock	"	"
293	" 21	"	Traverse City Iron Works	Machinery	"	"
294	" 21	"	Hannah, Lay & Co.	Flour and feed	"	"
295	" 21	"	V. A. Petertyl	Wagons and buggies	"	"
296	" 21	"	Wm. Jackson	Machinery	"	"
297	" 22	"	Alfred Jahraus	Cigars	"	"
298	" 22	"	Traverse Bay Eagle	Printed matter	"	"
299	" 22	"	Traverse City Transcript	"	"	"
300	" 22	"	John Foote & Son	Harness leather	"	"

District No. 5.

A. T. Ely, Deputy Inspector.

No. given factory for 1898?	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity.	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	Are registers kept and statements filled of children employed under 16 years of age?	No. hours per day for males under 16 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or slide?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are shifters used in throwing belts and loose pulleys where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
251	60	60	15	15					10	\$500	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
252	60	60	27	27					10	1,200	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
253	60	60	5	5																			
254	60	60	10	10																			
255	60	60	10	10																			
256	60	60	30	10					10	250	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
257	60	60	13	13					10	530	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
258	60	60	10	10																			
259	60	60	6	6																			
260	60	60	7	7																			
261	60	60	10	10																			
262	60	60	65	65					10	800	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
263	60	60	10	8	4				10	565	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
264	60	60	17	17					10	800	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
265	60	60	25	25					10										yes	yes	yes	yes	
266	60	40	22	22					10	780	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
267	60	40	40	40					10	1,500	80	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
268	60	15	15	15			1	yes	10	500	80	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
269	60	7	5	5					10	180	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
270	60	3	3	3																			
271	60	13	13	13					10	5,000	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
272	60	150	150	150					10	1,100	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
273	60	90	90	90					10	1,600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
274	60	30	30	30					10										yes	yes	yes	yes	
275	60	60	60	60					10	1,800	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
276	60	60	50	40					10	240	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
277	60	5	5	5					10	700	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
278	60	30	30	30					10	600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
279	60	14	14	14					10	600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
280	60	50	50	50			2	yes	10	600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
281	60	12	12	12					11	600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
282	60	50	50	50					10	175	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
283	60	7	7	7					10	535	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
284	60	15	15	15					10	1,000	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
285	60	82	82	82					10	1,800	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
286	60	26	26	26					10	2,300	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
287	60	200	180	180			17	yes	10	270	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
288	60	8	8	8					10	150	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
289	60	11	2	4					10										yes	yes	yes	yes	
290	60	25	25	25					10										yes	yes	yes	yes	
291	60	250	201	50			5	yes	10	6,000	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
292	60	125	50	50					10	1,600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
293	60	25	14	14					10	800	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
294	60	12	13	13					10	600	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
295	60	14	14	14					10	500	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
296	60	4	2	2					10	120	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
297	43	7	7	7					8	400	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
298	60	11	6	5					10	400	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
299	60	3	1	2					10	70	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
300	60	4	4	4					10	175	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	

Inspection book No. 7.

TABLE No. 5.—CONCLUDED.—

No. given factory for 1906.	Date of inspection.	Location.	Name of establishment.	What goods manufactured, handled or sold.	Running or idle?	If running, is it full or part time?
301	Oct. 23	Traverse City	Acme Potato Planter Co.	Potato planters	idle	full
302	" 23	Elk Rapids	Elk Rapids Iron Co.	Lumber	run.	full
303	" 23	"	Elk Rapids Iron Co.	Pig iron	idle	"
304	" 23	"	Elk Rapids Iron Co.	Chemicals	"	"
305	" 24	Bellaire	Bechtold & Richardt	Wooden trays and bowls	run.	full
306	" 24	"	Henry Richardt	Woodenware	"	part
307	" 24	"	Thomas Tindale & Co.	Cooperage stock	idle	"
308	" 24	"	Wm. N. Davenport	Shingles	"	"
309	" 24	Central Lake	G. H. Bradford	Lumber	"	"
310	" 24	"	Cameron Lumber Co.	"	"	"
311	" 24	"	Cameron Lumber Co.	Dressed lumber	run.	full
312	" 25	Charlevoix	Charlevoix Lumber Co.	Lumber, lath, etc.	"	"
313	" 25	"	Francis & Burns	Dressed lumber	"	"
314	" 25	"	Charlevoix Roller Mill	Flour and feed	"	"
315	" 25	"	G. G. Williams	Wooden bowls	idle	"
316	" 25	"	D. M. Ferry & Co.	Sorted seeds	"	"
317	" 25	East Jordan	East Jordan Lumber Co.	Lumber, lath, etc.	run.	full
318	" 26	"	C. A. Barker	Lumber	idle	"
319	" 26	"	South Arm Lumber Co.	"	"	"
320	" 28	Ellsworth	Ellsworth Lumber Co.	Lumber and shingles	run.	full
321	" 29	McBain	J. W. Cromwell	Lumber and dim. stock	"	"
322	" 29	"	Symes Bros.	Lumber	"	"
323	" 29	"	Dewey Stave Co.	Staves	"	"
324	" 30	Marion	A. M. Porter	Shingles	"	"
325	" 30	"	Marion Manufacturing Co.	Lumber, lath and hoops	idle	"
326	" 30	"	Dunham Bros.	Shingles	run.	full
327	" 31	Mt. Pleasant	Wm. Bamber	Apiarian supplies	"	"
328	" 31	"	Mt. Pleasant Roller Mills	Flour and feed	"	"

District No. 5.

T. A. Ely, Deputy Inspector.

No. given factory for 1898.	Hours per week, running full time?	Hours per week at date of inspection?	No. of persons employed when running full capacity?	No. of males employed at date of inspection.	No. of females employed at date of inspection.	No. of children under 14 years of age employed.	No. of children between the ages of 14 and 16 employed.	At registers kept and statements filed of children employed under 16 years of age?	No. hours per day for males under 18 and females under 21 years of age.	Average pay roll per month.	How many minutes are allowed for dinner?	Are hoisting shafts and well holes properly inclosed and secured?	Are all elevator openings properly guarded?	Are all stairs properly guarded?	Are all stairs properly screened at sides and bottom?	Where practicable, do doors swing outward or aside?	Are doors locked or bolted during working hours?	Are fire escapes provided where necessary and with suitable openings?	Are choppers used in throwing bales and loose pallets where possible?	Is all machinery, vats, pans, etc., properly guarded?	Are exhaust fans provided for carrying off dust where necessary?	Are suitable wash rooms and water closets provided?	Are water closets for females separate and properly screened?
801	80	80	10																				
802	80	80	47	47					1	\$2,000	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
803	80	80	128																				
804	80	80	27						10	550	60	yes	yes	yes	yes	yes	no		yes	yes	no	yes	
805	80	80	20	20					10	850	60	"	"	"	"	"	"		"	"	"	"	
806	80	80	14	14					10														
807	80	80	20						10														
808	80	80	20						10														
809	80	80	13						10														
810	80	80	58						10	290	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
811	80	80	8	8					10														
812	80	80	36	36					10														
813	80	80	4	4					10	120	60	"	"	"	"	"	"		"	"	no	"	
814	80	80	5	4					10	110	60	"	"	"	"	"	"		"	"	yes	"	
815	80	80	7						10														
816	80	80	25						10	3,100	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
817	80	80	80	80					10														
818	80	80	15						10														
819	80	80	55						10	750	60	yes	yes	yes	yes	yes	no		yes	yes	yes	yes	
820	80	80	26	25					10										yes	yes	yes	yes	
821	80	80	23	23					10	800	60	"	"	"	"	"	"		"	"	no	"	
822	80	80	23	22					10	800	60	"	"	"	"	"	"		"	"	"	"	
823	80	80	24	24					10	1,000	60	"	"	"	"	"	"		"	"	"	"	
824	80	80	10	10					10	890	60	"	"	"	"	"	"		"	"	"	"	
825	80	80	28						10														
826	80	80	12	6					10	200	60	yes	yes	yes	yes	yes	no		yes	yes		yes	
827	80	80	10	8					10	200	60	"	"	"	"	"	"		"	"	no	"	
828	80	80	6	6					10	810	60	"	"	"	"	"	"		"	"	"	"	

* Did not report.

DEDUCTIONS FROM TABLE NO. 5.

The Fifth Factory Inspection District is composed of the counties of

Antrim,	Grand Traverse,	Mackinac,
Alger,	Gratiot,	Marquette,
Baraga,	Houghton,	Mecosta,
Charlevoix,	Iron,	Menominee,
Chippewa,	Isle Royal,	Missaukee,
Clare,	Isabella,	Montcalm,
Delta,	Kalkaska,	Ontonagon,
Dickinson,	Keweenaw,	Osceola,
Emmet,	Leelanau,	Schoolcraft.
Gogebic,	Luce,	

This district has more territory than any other in the State, but owing to much of it being sparsely settled, it has less factories than any other. It will be seen that it includes all of the upper peninsula, and also has 13 counties in the lower peninsula. Its largest manufacturing industries are in lumber or in goods manufactured from the native timber. It might justly be called a district of "Magnificent Distances," but is none the less important, as some of the largest manufacturing plants of the State are in its jurisdiction. The great distance to be traversed by the inspector makes his work more arduous and less expeditious.

During the season 328 factories were inspected. The following list shows the kinds of goods manufactured, handled or sold in these factories, with the number of each.

Staves, heading, hoops, etc....	30	Clothes pins	2
Machinery	13	Pulp wood	1
Lumber, etc.	130	Cigars	5
Refrigerators	1	Electric light	5
Sash, doors, blinds, etc.	9	Charcoal and pig iron	9
Timber, shingles, etc.	29	Carriage trimmings	1
Furniture	7	Building stone	2
Farm implements	4	Carriages, sleighs, etc.	4
Interior finish	1	Boilers and sheet iron	2
Pails and tubs	1	Boxes	1

Electrical goods	1	Barrels	1
Sheet iron tanks	1	Butter tubs	1
Lime and crushed stone	1	Saw swages and repairs	1
Cloth and yarn	2	Cant hook handles	1
Excelsior	1	Logging tools	2
Carriage hubs	1	Assorted seeds	2
Printed matter	9	Baskets and fruit packages	1
Brick and tile	2	Harness leather	1
Maple flooring	3	Apiarian supplies	1
Woodenware, etc.	14	Saws	1
Broom handles	5	Laundry work	4
Sole leather	1	Wash boards	1
Building material	3	Flour and feed	8
Chemicals	2		
Whole number factories inspected			328

Number of factories running	263
Number of factories idle	65

Whole number of factories inspected. :

328

Number of factories running full time	248
Number of factories running part time	15

Whole number of factories running

263

It will be seen that about 20 per cent of the factories in this district were idle at the time of inspection, and of those running 6 per cent were running only part of the time.

HOURS OF LABOR PER WEEK.

Of the factories inspected in this district two were found running all the time, including Sundays, and one that runs all the time week days. These three employ a double force of operatives. There are also two that work overtime with one set of employees. Their average hours per week as running at present is 60½. If running at full time it would be 61½. The majority of these factories recognize 10 hours as a day's work, or 60 hours for each week. If they were running at full time they would work 20,247 hours each week. They now work 15,939 hours, a loss of 4,308 hours each week, or 718 hours each day. This represents a loss of nearly 72 days every day, 430 days every week, 1,866 days every month, and 22,392 in a year. Computed at \$1.37, the average paid daily to each employe in this district, we find the sum of \$31,677 annually.

EMPLOYEES.

Number employed when running full capacity.....	16,842
Number employed at present.....	13,634
Number less full capacity.....	3,208
Number of males employed at present.....	13,443
Number of females employed at present.....	191
Whole number employed at present.....	13,634

These figures show that the factories in this district are running with about 80 per cent of their full capacity. The female employees are but little over 1 per cent of the whole number employed. They are employed in 21 factories.

If these factories were running at full capacity they would employ 3,208 more persons. This would mean \$4,495 for every day, computed at \$1.37 per day, or \$26,970 every week, \$116,869 every month, making \$1,402,427 each year. This added to the \$31,677 loss on account of running short time makes a yearly loss to labor of \$1,434,104 in the factories inspected in this district.

CHILD LABOR AND MINORS.

Number of factories where children under fourteen years of age were found.....	2
Number of children found employed.....	4
Number of children under 14 discharged.....	4
Number of factories that employ children over 14 and under 16...	38
Number of such children employed.....	180
Number of male children employed under 16.....	177
Number of female children employed under 16.....	3
Whole number between 14 and 16 employed.....	180
Number that keep registers and statements on file for children employed.....	21
Number that do not keep such registers and statements.....	17
Whole number employing children under 16.....	38

Many factories have failed to keep registers and statements on file for children because they did not understand that part of the law. In those cases they promised to immediately comply with its provision.

The average time required of females under 21 and males under 18 in this district is 60 hours per week. No factory was found where employees of this class were allowed to clean machinery when in motion.

RELATIVE TO WAGES.

Number that say wages have been increased since, Jan. 1, 1894.....	14
Number that say wages have been reduced since Jan. 1, 1894.....	20
Number that say wages have not been increased nor reduced since Jan. 1, 1894	229
Whole number of factories running	263
Average increase.....	8 per cent
Average decrease	8 $\frac{3}{4}$ per cent

About 6 per cent of the factories report an increase in wages, while about 8 per cent report a reduction, both being about the same per cent. In the rest of the factories the wages have remained the same, showing that there has been no material change since January 1, 1894.

Aggregate of monthly pay rolls for factories that were running.	\$484,325 00
Average for each factory	1,842 00
Average per month for each employe.....	\$35.52
Average per day for each employe	1.37

DINNER HOUR.

Number of factories that allow 60 minutes for dinner.....	257
Number of factories that allow 50 minutes for dinner.....	2
Number of factories that allow 45 minutes for dinner.....	2
Number of factories that allow 40 minutes for dinner.....	2
Whole number of factories running	263

These figures show that about 98 per cent of these factories allow the full hour for dinner. Only two factories have been given special permission to allow less than 45 minutes.

HOISTING SHAFTS, ELEVATORS AND STAIRS.

In this district all of the factories requiring them have hoisting shafts and well holes properly inclosed and secured, and all but seven have automatic trap doors or gates provided in floors where elevators are used. Protection for these elevators was ordered to be provided without unnecessary delay and a compliance was promised.

The stairs in factories in this district were found in good condition, there being only three reported not properly protected, and none where they were not properly screened.

DOORS AND FIRE ESCAPES..

Number that have doors that swing outward or slide where practicable	257
Number where question is not answered	6
Whole number of factories running	263

Number that do not have doors locked or bolted during working hours	259
Number where question is not answered	4
Whole number of factories running	263

It will be seen that the factories inspected in this district have generally complied with the law in this respect. Operators were found ready to comply with the orders of the inspector.

Fire escapes are rarely needed in this district, as most of the factories are of a nature where buildings are only one or two stories high. The inspector found no place where he deemed it expedient to order fire escapes.

MACHINERY, ETC.

Number that have proper shifters for throwing belts on or off pulleys, and where possible loose pulleys	215
Number that do not have such shifters and pulleys	28
Number not using belts	20
Whole number of factories running	263

Number that have vats, pans, saws, cogs, belting, gearing, shafting, set screws and machinery properly guarded.....	254
Number that do not have such proper guards.....	2
Number that have no vats, pans, or machinery.....	7
Whole number of factories running	263

It will be seen from these deductions that all but about 10 per cent of the factories inspected have proper shifters in use for throwing belts on or off pulleys. In places where they were not found, an immediate compliance was promised.

The machinery is well guarded, there being but two places found that were deficient in this respect.

SANITARY.

The inspector found many places not provided with blowers or dust arresters for carrying off dust, but in most cases a ready compliance with the law was promised. He confidently expects that a revisit will find many of these places equipped with some necessary device for this work.

Eight factories of those inspected were reported without suitable wash rooms and water closets. Directions were given for an immediate change in this respect.

No place was found where the female employes were not provided with separate closets, and such closets well screened.

REMARKS.

Previous to this year a large proportion of the factories in this district had not been inspected. The inspector found many operators ignorant as to the provisions of the law, but found that there was a cheerful acquiescence in complying with it. Peremptory orders for changes were not generally given, except in cases of urgent necessity. A revisit will probably find many improvements, rendering the work for the coming year more pleasant for all parties.

Only 18 accidents were reported to the inspector. A synopsis of these accidents, with changes ordered, will be found on the pages following this.

CHANGES ORDERED DURING YEAR.

DISTRICT NO. 5.

[The number refers to the inspection number in table.]

No. 32.—Ordered stairs thoroughly repaired.

No. 36.—Ordered statements placed on file with names and ages of children employed, under 16 years of age.

No. 40.—Ordered registers kept of all employed under 16 years of age.

No. 133.—Ordered registers kept of children between 14 and 16; handrails on all stairs, also machinery well protected.

No. 160.—Ordered registers kept and statements on file of all children between 14 and 16 years of age.

No. 178.—Ordered automatic gates for all elevator openings.

No. 280.—Ordered automatic gates or doors for all elevator openings.

ACCIDENTS REPORTED DURING YEAR.

DISTRICT NO. 5.

[The number refers to the inspection number in table.]

- No. 1.—June 12, 1895. Leo Nemittz, age 22, single, janitor in the employ of E. C. Bradford & Bro., Bannister, had both thumbs crushed. Was disabled 2 weeks; board paid by firm.
- No. 2.—September 7, 1895. John Chittenden, age 21, single, in charge of the factory of Saliotte & Chittenden, Ashley, was killed by his own carelessness. Burial expenses paid by father.
- No. 21.—June 17, 1895. E. McDowell, age 45, single, lost three fingers while employed as fireman by B. J. Shourds, at Horr. Was disabled 6 weeks and received no wages during time disabled.
- No. 22.—May 10, 1895. Andrew Holcum, age 41, married, slab sawyer, employed by John S. Weidman, Weidman, lost three fingers. Was disabled 3 months; received wages, board and doctor's bill while disabled.
- No. 46.—March 20, 1895. Robert Caley, age 23, single, employed by Hall-Munson Co., Bay Mills, in frame department, had ends of three fingers cut off. He was disabled 4 weeks and received wages and doctor's bill.
- No. 46.—February 2, 1895. Edward Elkins, age 25, single, employed in blind department by Hall-Munson Co., Bay Mills, lost four fingers. Was disabled 3 months and received wages and doctor's bill while disabled.
- No. 46.—February 6, 1895. George Sayer, age 22, single, was disabled 4 months by having arm badly cut while employed in blind department for Hall-Munson Co., Bay Mills. He received wages and doctor's bill during time disabled.
- No. 57.—June 17, 1895. Ed. Drew, age 22, married, machine hand in the employ of Dickerson Manufacturing Co., Marquette, had fingers crushed. Was disabled 3 weeks and received wages while disabled.
- No. 68.—July 16, 1895. Charles Olson, age 24, single, trimmer, employed by Charles Hibbard & Son, Pequaming, lost three fingers. Was disabled 4 weeks and received no wages during time disabled.

- No. 71.—July 17, 1895. Joseph Voisene, age 31, married, lost fingers on right hand while in the employ of Thomas Nester, Baraga. He received accident insurance and one half wages while disabled.
- No. 98.—May 13, 1895. V. Carduma, age 18, single, in the employ of Interior Lumber Co., Interior, was injured on head by breaking of pulley. Was disabled 5 weeks; received wages and doctor's bill during time disabled.
- No. 99.—June 20, 1895.—Joseph Peptin, age 50, married, had leg broken while handling slabs for Kern & Woodman, Crozier. Was disabled 3 months and received \$55 from firm.
- No. 112.—June 15, 1895. Charles Bell, aged 15, had ends of fingers and thumb cut off while employed by Menominee Shingle Co. Was disabled 2 months and received \$20 from firm.
- No. 114.—May 25, 1895. John Bohn, age 35, single, employed at picket machine for Menominee Sash and Door Co., lost two fingers. Was disabled 6 weeks and received no wages during time disabled.
- No. 131.—June 6, 1895. William H. Harrison, age 45, single, in the employ of I. Stephenson Co., Wells, as millwright, was killed through carelessness. Burial expenses paid by company.
- No. 131.—June 12, 1895. Peter Nelson, age 22, single, sawyer, had leg broken while in the employ of I. Stephenson Co., Wells.
- No. 136.—February 8, 1895. Phillip Rona, age 30, single, employed on log slide by Neugle, Holcomb & Co., Masonville, had leg broken through carelessness. Board paid during time disabled.
- No. 160.—April 12, 1895. Walter Whitmore, age 22, single, employed at piling staves for Sandusky Cooperage & Lumber Co., North Star, had thumb and finger of right hand cut off. Was disabled 6 weeks and received no wages during time disabled.
- No. 163.—September 7, 1895. Charles Morey, age 30, married, employed by Gardner Peterman & Co., Riverdale, had three fingers injured on left hand. Was disabled 4 weeks, and received no wages while disabled. Doctor's bill paid by manager of mill.
- No. 205.—April 15, 1895. Christian Rashley, age 40, married, employed as edger by W. H. White & Co., Boyne City, was killed. Burial expenses paid and \$500 given to the family by company.

SUMMARY.

GENERAL SUMMARY OF THE WORK FOR 1895.

Number factories inspected in district No. 1	1,050
Number factories inspected in district No. 2	615
Number factories inspected in district No. 3	726
Number factories inspected in district No. 4	418
Number factories inspected in district No. 5	328

Whole number factories inspected	3,137
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Number factories running in district No. 1	985
Number factories running in district No. 2	555
Number factories running in district No. 3	669
Number factories running in district No. 4	364
Number factories running in district No. 5	263

Whole number factories running	2,836
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Number running full time in district No. 1	857
Number running full time in district No. 2	511
Number running full time in district No. 3	604
Number running full time in district No. 4	341
Number running full time in district No. 5	248

Whole number running full time	2,561
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HOURS RUNNING.

Hours weekly, if running full time	186,491
Hours weekly, as running at time of inspection	166,717
Loss in hours per week	19,774

Reduced to days of ten hours each it is a daily loss of 329½ days, a weekly loss of 1,977 days, a monthly loss of 8,567 days and a yearly loss of 102,804 days. Computed at \$1.32 per day, the average wages paid employes of factories inspected, and it shows a daily loss of \$434.94, a weekly loss of \$2,609.64, a monthly loss of \$11,308.44, and a yearly loss of \$135,701.28. This is a loss to labor by reason of factories being idle and running short time. A greater loss is shown by reason of factories running less their full capacity.

EMPLOYES.

Number employes when running full capacity	153,365
Number of employes as running at time of inspection	112,048
Loss as compared when running full capacity	41,317

This means that if these factories ran to their full capacity they would employ 41,317 more persons. Compute their daily wages at \$1.32 per day, and it shows a daily loss of \$54,538.44, a weekly loss of \$327,230.64, a monthly loss of \$1,417,999.44, or a yearly loss of \$17,015,993.28. Add to this the \$135,701.28, the loss by reason of running short time, and the aggregate is \$17,151,694.56 annually. Appalling as these figures seem, they reveal an actual fact which manufacturers of Michigan and their employes had to face in the year just passed. When it is taken into consideration that the average wages paid those at work are much less than formerly paid, it cannot be denied that factory employes in Michigan are passing a season of depression never before experienced in the state.

Number of males employed	96,884
Number of females employed	15,164
Whole number employed	112,048
Number of factories that employ females	846

The number of males constitutes over 86 per cent of the employes, while the female employes are a little less than 14 per cent of the whole number. The factories employing females are about 30 per cent of the whole number running.

CHILD LABOR.

Number of factories where children over 14 and under 16 were employed	484
Number of children employed over 14 and under 16	1,989
Number of factories where children under 14 were found employed	64
Number of children under 14 found employed	140

It will be seen that of the factories running about 17 per cent employed children between the age of 14 and 16 years, and that said children constituted a little less than 2 per cent of the entire number employed. It will also be seen that but few factories were found where children under 14 were employed, such children being only about one-tenth of 1 per cent of the employes. All children under 14 years of age were ordered discharged immediately.

MONTHLY PAY ROLL.

Number that give average monthly pay roll	2,813
Number that do not give average monthly pay roll	23
Whole number running	2,836
Aggregate monthly pay rolls	\$3,823,815.00
Average monthly pay roll	1,359.34
Average per capita per year for employes	412.32
Average per capita per month for employes	34.36
Average per capita per day for employes	1.32

It will be seen that 23 of these factories which were running did not give their monthly pay roll. An estimate shows that had they been given, together with the number of employes, the average results would have been about the same. Reports show that there has been no material increase or decrease in wages since January 1, 1894.

DINNER HOUR.

Number that allow 60 minutes for dinner	2,284
Number that do not allow 60 minutes for dinner	545
Number that do not answer	7
Whole number of factories running	2,836
Number that allow less than 45 minutes for dinner	287

In all cases where less than 45 minutes were allowed for dinner, permission was given by the inspectors for a shorter period. In most of these cases 30 minutes was the time fixed, although a few were 40 minutes, and two were found where only 25 minutes could be spared. Many manufacturing establishments are found where the machinery cannot be stopped at the noon hour without great loss to the operators.

MINORS.

The average hours per week required of women under 21 and males under 18 was found to be 59½. Only two places were found where such minors were allowed to clean machinery while in motion. These were in the first and second districts.

HOISTING SHAFTS AND WELL HOLES.

Many factories were found where there were no hoisting shafts, etc., but as a rule where found they were enclosed and secured. Inspectors were very particular in this respect, and operators were generally willing to comply with the law.

AUTOMATIC TRAP DOORS OR GATES.

A great many factories are located in one and two story buildings, where elevators are not used. Where elevators were used inspectors were very careful as to proper guards for the openings, and made many orders in this respect. Of those using elevators 566 were found properly guarded and 274 where such guards were ordered.

STAIRS.

Proper railings, or rubber on steps were ordered on 197 stairs, and 96 places were found where stairs used by females were not properly screened. Generally this important item was attended to by those in charge without orders from the inspectors. In all places where the law was not complied with, prompt orders were given.

DOORS.

In the factories running, 15 places were found where doors were locked or bolted during working hours. Orders were given to discontinue this custom. Only 25 places were found where the law was not complied with as regards doors sliding or swinging outward where practicable. It will be seen that the law in this respect relies on the judgment of the inspector.

FIRE ESCAPES.

The matter of fire escapes has received close attention. Of the buildings where such safety devices were found necessary 737 were found so equipped. In 84 places proper fire escapes were found wanting and orders for their erection were given. About 29 per cent of the factories inspected should have fire escapes and of this number about 90 per cent are so equipped.

SHIFTERS AND LOOSE PULLEYS.

Only 63 places were found where proper shifters for throwing on and off belts and loose pulleys were not provided. A compliance with the law was promised in most instances without imperative orders.

VATS, PANS, MACHINERY, ETC.

In the matter of guards for vats, pans, saws, machinery, etc., the inspectors found 2,047 factories properly guarded, but found 317 factories where proper guards were wanting. In all cases orders were given for such changes as would insure safety, and where changes were ordered compliances were promised.

EXHAUST FANS.

Owners and operators are realizing the importance of providing suitable devices for carrying off dust from dust creating machinery. The inspectors found a large per cent of factories where these fixtures were necessary, provided with some suitable device. In places where the system was imperfect or where none was provided, orders were given for such changes as would insure protection for employees.

WATER CLOSETS AND WASH ROOMS.

Only 27 factories were found where suitable water closets and wash rooms had not been provided for males. This necessary sanitary precaution is being more closely looked to by owners of buildings and operators, the result of which can but be beneficial to all.

Separate closets properly screened for female employees were generally found, although there were 56 places where decided orders were given in this respect, 20 in the first district, 4 in the second district, 27 in the third

district and 5 in the fourth district. Comparisons show that there has been a decided improvement in these important items since the factory inspection law went into operation.

CHANGES ORDERED.

The reports from the deputy inspectors show that changes have been ordered in nearly 30 per cent of the factories which were running, in many factories several orders being made. A perusal of these orders which follow the deductions of the tables in each district will be found interesting as showing the diligence and carefulness of the inspectors while in discharge of their duties.

Number of factories where changes were ordered, 1st district	260
Number of factories where changes were ordered, 2d district.....	174
Number of factories where changes were ordered, 3d district.....	289
Number of factories where changes were ordered, 4th district	97
Number of factories where changes were ordered, 5th district.....	7

Whole number factories where changes were ordered.....	827
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Whole number of changes ordered.....	1,614
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ACCIDENTS.

The reports of accidents which occurred, with name and age of the party killed or injured, whether married or single, at what employed, nature of accidents, how long disabled, and whether aid of any kind was furnished during disability, follow the changes ordered in each district, and will be found interesting as showing the condition of those who were unfortunate and the care they received.

A number of the accidents reported in the first district were caused by the boiler explosion at the Detroit Journal office, November 6, 1895, only a short time before the inspector closed his work for the year.

Number of accidents reported in 1st district.....	85
Number of accidents reported in 2d district	23
Number of accidents reported in 3d district	88
Number of accidents reported in 4th district.....	37
Number of accidents reported in 5th district.....	20

Whole number accidents reported	253
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THIRD ANNUAL REPORT.

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Number fatal accidents in 1st district.....	26
Number serious accidents in 1st district.....	25
Number severe accidents in 1st district.....	24
Number slight accidents in 1st district.....	10
Whole number accidents in 1st district.....	85
Number fatal accidents in 1st district by boiler explosion....	*21
Number fatal accidents in 2d district.....	3
Number serious accidents in 2d district.....	14
Number severe accidents in 2d district.....	5
Number slight accidents in 2d district.....	1
Whole number accidents in 2d district.....	23
Number fatal accidents in 3d district.....	7
Number serious accidents in 3d district.....	33
Number severe accidents in 3d district.....	30
Number slight accidents in 3d district.....	18
Whole number accidents in 3d district.....	88
Number fatal accidents in 4th district.....	4
Number serious accidents in 4th district.....	23
Number severe accidents in 4th district.....	9
Number slight accidents in 4th district.....	1
Whole number accidents in 4th district.....	37
Number fatal accidents in 5th district.....	3
Number serious accidents in 5th district.....	11
Number severe accidents in 5th district.....	2
Number slight accidents in 5th district.....	4
Whole number accidents in 5th district.....	20
Whole number fatal accidents reported.....	43
Whole number serious accidents reported.....	106
Whole number severe accidents reported.....	70
Whole number slight accidents reported.....	34
Whole number accidents reported.....	253
Whole number fatal accidents reported by boiler explosions.....	23

* These are accidents which occurred in factories inspected by the deputy inspector.

About 39 per cent of the accidents reported were from causes beyond the reach of any precaution the inspectors could have taken, such as boiler explosions, falling, burning with molten iron, bursting of grindstones, etc. These latter are classified as follows: Fatal, 33; serious, 28; severe, 26; slight, 11. Deducting these from the whole number reported, it will be seen that the per cent of accidents for the factories inspected is very low.

Further deductions could be made of statistics contained in the tables. The student of political economy and all others interested in statistics of this nature will find a study of these tables valuable.

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